Monthly Labor Review

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Labor Developments in 1949

Public-Assistance Programs: Part 3 of a Series

Reports and Recommendations of the President and CEA

Employment Outlook for Teachers

UNITED STATES DEPARTMENT OF LABOR

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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This Issue in Brief . . .

A review of significant events in the field of labor during the past calendar year is presented in LABOR DEVELOPMENTS IN 1949 (p. 125). Employment generally was not much below the 1948 level, remaining more constant in nonmanufacturing than in manufacturing industries. This stability is credited primarily to the arrest and subsequent reversal of a general downward business trend. Changing economic conditions were also reflected in a moderation of union demands which resulted in fewer strikes. Despite this fact the number of man-days lost through strike idleness in 1949 exceeded the number recorded in either 1948 or 1947—an effect of the prolonged coal and steel strikes. Another development was the growth of employee pension plans as a major factor in collective bargaining. Although labor achieved some legislative objectives, it failed to secure repeal of the Taft-Hartley Act.

The President again urged repeal of this act in his State of the Union message, which with his economic report is reviewed in REPORTS AND RECOMMENDATIONS OF THE PRESIDENT AND THE CEA (p. 140). Appraising the national economy and citing advances on each of its fronts, both documents follow the general tone that the State of the Union remains good, but can be improved. Better cooperation between industry, labor, and government was cited as a primary factor in the recovery from the recession of early 1949. One means of improving the national economy, proposed by the President, was broadening the coverage and increasing the benefits provided under the Social Security Act.

The need for revising the benefits provided under this legislation is pointed up in PROGRAMS OF PUBLIC ASSISTANCE IN THE UNITED STATES (p. 132), which is the third of a series of four articles written by specialists in the field of social security. The importance of public assistance as an economic and social factor is evident from the fact that 1 of each 30 persons in the United States depends upon the program for full or partial support. Operation of the four types of assistance—old age assistance, aid to the blind, aid to dependent children, and general assistance—are described. The article traces trends, keying them to the depression of the thirties, the full employment era of World War II, and the readjustment period following the war. The financing of each type of program is reviewed, inequities pointed up, and remedial legislation discussed.

Education, another social factor, has been highlighted recently in widely publicized accounts of the prevalent teacher shortage. EMPLOYMENT OUTLOOK FOR ELEMENTARY AND HIGH SCHOOL TEACHERS (p. 146) discloses that this situation has been largely remedied in secondary (or high) schools. Elementary-school teachers remain in short supply in practically every State, but most States have an oversupply of secondary-school teachers in all but a few special subjects.

Results of a mail questionnaire of 3,300 dietitians summarized in SALARIES AND WORKING CONDITIONS OF DIETITIANS, 1949 (p. 149) disclose that hospital dietitians earned an average annual salary of $2,820 last year. The article also presents data as to salaries of those living in hopsitals, those doing hospital work but living outside hospital quarters, and those employed by utility firms and municipalities. Regional variations in pay and differences in employment conditions and related benefits are compared. Asked to indicate their chief dissatisfaction with the profession, most dietitians' complaints were economic in nature, involving retirement provisions, security against unemployment, opportunity for promotion, and salaries.

The widespread acceptance of arbitration as a procedure for settlement of grievances arising during the life of the contract was revealed by analysis of 1,482 current collective-bargaining contracts. This analysis, in ARBITRATION PROVISIONS IN UNION AGREEMENTS IN 1949 (p. 160), indicates that 83 percent of the contracts studied provided for some type of arbitration. Existing contracts are compared as to jusrisdiction of arbitrators, arbitration machinery provided, and the use of an impartial agency in selecting the arbitrator.

The Labor Month in Review

THE PRESIDENT'S DECISION to invoke the Taft-Hartley Act in the bituminous-coal dispute overshadowed other current labor developments. The threatened interruption of nation-wide telephone communications scheduled for February 8 was forestalled by agreement of both parties to the Government's request that negotiations between the telephone workers and the companies be continued. Unemployment increased by about a million from December to January, more than the expected seasonal rise. Employment declined seasonally. Other indicators of business activity appeared to show little change during the month; industrial production, retail trade, and most prices remained fairly stable.

Board of Inquiry in Coal

On February 6, the President intervened directly in the protracted coal dispute by appointing a board of inquiry to investigate and report within 7 days on the issues involved. This action was taken under section 206 of the Taft-Hartley Act which permits the President to appoint such a board if, in his opinion, a labor-management dispute imperils the national health and safety. After receiving the report, the President may direct the Attorney General to ask for a Federal District Court injunction to restrain such a strike for 80 days.

The President took this action after all efforts to obtain voluntary agreement between the disputing parties appeared to have failed. On January 31, he had asked both the operators and the union to reach an agreement or else call a truce and submit the issues to a fact-finding board. This board would have had authority to make recommendations, but the recommendations would not have been binding on either party. The wage scale of the expired contract would have been paid during the truce. In the final analysis, the President declared, the parties themselves must write their own agreement. "Voluntary action not compulsion in these matters is not only my personal conviction but the national policy."

Negotiations between the miners and operators had been resumed on February 1; but, after less than 2 days of negotiations, the operators left the conference and announced that they would accept the President's proposal for a fact-finding board. The union refused to accept the plan, and on February 6 most of the miners remained away from their jobs. On February 8, negotiations were again resumed at the request of Chairman Cole of the board of inquiry.

The labor-management difficulties in the coal industry had been continuous throughout the month of January. Injunction proceedings were begun on February 1 by Robert N. Denham, general counsel of the NLRB, against John L. Lewis, president, and the United Mine Workers Union to end the 3-day workweek and to restore normal coal production. This action had been taken following unfair labor practice charges brought by the mine operators against the union. A walk-out of about 70,000 miners in the early part of January was not ended when Lewis "suggested" to the miners that they resume production. Some of the striking miners returned to work, but many continued to ignore the national office suggestion, and the number of miners on strike rose to an estimated 100,000 by the end of the month.

Automobile and Telephones

Two other important labor-management disputes were in progress during January and early February. A strike on January 25 by the United Auto Workers (CIO) against the Chrysler Corp. made idle about 90,000 workers employed by that company and more than 30,000 employed by suppliers of bodies and parts. The disagreement was largely over the question of implementation of pension and social insurance plans. Both sides had agreed on $100 a month pensions, including Federal social security benefits, for workers over age 65 with 25 years' service. The company offered to pay the pensions on a "pay-as-you-go" basis, insisting that the "cost of meeting the Chrysler proposal is a Chrysler problem." The union demanded that insurance funds be set up through company contributions of 10 cents an hour—6 cents for pensions and 4 cents for social insurance. The union also demanded a provision for joint management of the trust fund.

The other dispute involved the Communication Workers of America (CIO) and the American Telephone and Telegraph Co. and its affiliates. At the request of the Federal Mediation and Conciliation Service, a strike scheduled for

February 8 was postponed for 16 days. About 100,000 telephone workers in all parts of the country has been scheduled to strike, but it was reported that an estimated 220,000 other members of the union would leave their jobs by refusing to cross picket lines around telephone exchanges, plants, and offices.

The union's demands, the same generally throughout the country, were for "substantial" wage increases, shorter hours, reduction of wage differentials for different parts of the country, and a shortening of the present wage progression scale which takes as much as 8 years to complete. The union maintained that the labor policies of the affiliated companies are controlled by the AT & T.

Gompers' Centennial

Labor and government officials, including President Truman, paid tribute to the memory of Samuel Gompers on the centennial anniversary of that labor leader's birth, January 27. At a dinner in Washington, the President described Gompers as "labor's greatest statesman" and "originator of the great movement which set labor free." Secretary of Labor Tobin, in a radio statement, said; "Like Abraham Lincoln, he [Gompers] sought to convince a public unfamiliar with the aims of trade-unions, that our democracy would be served best if the status of the laboring man were improved . . . The social progress and legislative advances in America during the last half century bear out Gompers' vision."

Other Union Developments

The prospect for labor unity appeared improved after the meeting in Miami of the executive council of the American Federation of Labor in January and early February. It was reported that an invitation for reaffiliation would be extended to the International Association of Machinists (Ind.) and that the Congress of Industrial Organizations would be approached on the subject. In December, William Green, president of the AFL, speaking of the cooperation between AFL and CIO delegates at the London International Conference of Free Trade Unions, declared: "We acted jointly at all times and were united on all issues." This cooperation, Mr. Green asserted, "ought to aid in bringing about national unity." Eventual merger between the two organizations was subsequently predicted by other high AFL officials. In New York City, AFL and CIO leaders agreed to unite their political strength to form a "United Labor Committee" on a permanent basis. Joint action was also pledged at the Connecticut State CIO convention.

The uncertain situation regarding union representation in the electrical manufacturing industry came closer to being settled by a decision by the NLRB to conduct union elections in five electrical divisions of the General Motors Corp. Employees will decide whether they wish to be represented by the now unaffiliated United Electrical, Radio, and Machine Workers (UE) or the International Union of Electrical, Radio and Machine Workers (IUE–CIO). The petitions for elections filed by the CIO union were opposed by the UE on the ground that the current contract of the employers barred further proceedings. The Board denied the UE's motion that the CIO petition be dismissed and ruled unanimously that the contract does not bar a present determination of representation. The opinion reviewed the union situation and found that "there exists a serious doubt as to the present identity of the labor organization which the employees . . . desire to have represent them, and that it can best be resolved by an election."

Unemployment at Postwar High

Unemployment increased by almost a million between early December and early January to reach a new postwar high of 4.5 million. The rise in unemployment appeared to be due in part to seasonal factors, including bad weather which kept large numbers of construction and farm workers from their jobs. Although the increase was about a quarter of a million more than that of a year ago, relatively fewer workers were laid off this year because of nonseasonal cut-backs in production.

Employment in nonagricultural industries fell by about a million to about 50.7 million. The drop in employment was accounted for largely by such seasonal industries as trade and construction and by the lay-off of many temporary postal workers. Agricultural employment declined seasonally by about a half million. Although the January unemployment figures include many farm workers who left their jobs, most of the decrease in farm employment represents women who left the labor force to resume full-time household duties or other activities.

Labor Developments in 1949

The Unemployment Problem, Strike Losses, Growth of Employee Pension Plans, and Legislative Record

LABOR GAINS achieved through collective bargaining in 1949 were conditioned in large measure by elements of uncertainty in the business situation during the first half of the year. Gains through legislation, although very significant, were offset to some extent by failure to obtain the repeal of the Labor Management Relations (Taft-Hartley) Act. But within the labor movement, clear-cut decisions advanced the cause of democratic labor organization at home and abroad.

As 1949 opened, the economy was experiencing a downtrend in the major phases of economic activity, and by July, the number of unemployed had passed 4 million. Increasing difficulty in obtaining new jobs and the exhaustion of unemployment compensation benefits made the problem serious for many of the workers affected and for certain geographical areas where they were concentrated. Involuntary part-time employment and a reduction in hours lowered incomes for many other workers. The effects of the business recession were extensive, leading to a moderation of wage demands by many unions and growing caution on the part of industry in increasing labor costs. Labor-union demands for pension and social insurance benefits, financed by employers, replaced those for wage-rate increases as the year progressed. In a number of important instances negotiations between employers and workers broke down, and large strikes of extended duration followed.

Labor as a group, however, was not seriously affected by the recession in business. Employment generally was not much below the 1948 level and the wage benefits obtained through collective bargaining, though not generally substantial, were widespread. For the first time in a decade, buying power was not reduced by a rise in prices.

An important step in labor's progress toward a higher standard of living was the enactment, during 1949, of amendments to the Fair Labor Standards Act raising the minimum wage to 75 cents an hour. Improved labor laws were passed in most of the States, and "little Taft-Hartley Acts" were repealed in some States.

Within the Nation's two largest federations of labor, national and international programs designed to strengthen their position progressed during 1949. The American Federation of Labor and the Congress of Industrial Organizations proceeded with their programs of political action in preparation for the 1950 elections. CIO took steps to rid itself of the Communist forces within its ranks by forthright action at its eleventh constitutional convention. Both the AFL and CIO participated in the formation of the democratic International Confederation of Free Trade Unions which was established by delegates from 52 countries at a meeting held in London late in the year.

The Recession in Business and Employment

The recession of early 1949 was reflected in the decline in employment and the increase in unemployment. Total employment decreased by about 2 million between the high point in July 1948 and the summer of 1949, according to Bureau of the Census estimates. Unemployment, which had dropped to a postwar low point in the fall of 1948, began to increase steadily thereafter, and by July reached a level of slightly over 4 million. After the middle of the year, however, the business downtrend was first halted and then reversed. The number of unemployed declined seasonally during the autumn months and, by the year's end, total employment was less than a million below

the previous year's level. The large lay-offs were concentrated in a relatively few industries in certain areas, creating serious economic problems.

The economic downtrend has been largely attributed to an adjustment of inventories, which permitted the economy to continue at a high level in the nonmanufacturing sphere. Inventories of a great many manufactured goods appeared to have increased beyond the level necessary to meet current demand. Retailers and wholesalers curtailed orders, and manufacturers' production schedules were revised downward with attendant layoffs.

Some inventory adjustment had been made by the end of the summer. The underlying strong supporting factors in the economy asserted themselves and, in the following months, except for the period of the coal and steel strikes in October, the business trend was moderately upward.

One of the favorable elements in the recent business recovery was the fact that the recession had not reached important parts of the economy. Several basic industries, particularly construction and automobile production, continued to operate at capacity throughout the period. Consumer income and purchasing power were well maintained; the decline in personal income between the last quarter of 1948 and the third quarter of 1949 was less than 3 percent. The loss of wages in manufacturing was offset to some extent by unemployment compensation and by some expansion in other industries. Consumption expenditures and trade generally were not seriously affected, the dollar decline in this period having been less than 2 percent. Since prices declined by even more than that proportion, actual consumption of goods and services appears to have been at a higher rate at the end of the period.

Nonagricultural employment, in February 1949, for the first time since the Second World War ended, was lower than in the corresponding month of the previous year. Between July 1948 and July 1949, the number of persons employed in nonagricultural jobs had declined by more than 2 million. Farm employment, however, was generally greater in the first part of 1949 than in the corresponding period of 1948, owing partly to more favorable weather.

Sharp Drop in Manufacturing Employment. Most of the decline in employment from the autumn of 1948 to the middle of 1949 was in the manufacturing industries. The Bureau of Labor Statistics reported total manufacturing employment of 15.6 million in September 1948 as against 13.8 million in July 1949. (Some seasonal increase brought manufacturing employment to 14.3 million in September 1949.) Industries which showed the greatest declines from September to July, after allowance for seasonal changes, were nonelectrical machinery, textile-mill products, primary metals, fabricated metal products, electrical machinery, and lumber. In a number of other important industries—such as furniture, paper, printing, chemicals, rubber, leather, and stone—the employment decrease numerically was moderate or slight. Still other industries, such as automobiles, aircraft, and petroleum, continued to operate at the high levels of 1948.

Some recovery in manufacturing employment from the midsummer low point took place toward the end of the year 1949. Employment gains were especially noteworthy in two of the more severely affected industries—textiles and electrical machinery. Considerable reemployment also took place in the paper and furniture industries. No further declines occurred after midsummer in several other important industries, such as lumber, stone, fabricated metal products, rubber, and leather.

Nonmanufacturing Employment Maintained. Employment in nonmanufacturing industries, except for mining and railroad transportation, was fairly well maintained during all of the year. Coal production began to exceed demand before the beginning of 1949, and metals came into plentiful supply before the middle of the year. Coal strikes, "holidays," and short workweeks caused irregular coal production throughout the year, and coal-carrying railroads were frequently forced to curtail operations and lay off personnel. The reduction in railroad freight traffic over the year reduced employment by 150,000 from the fall of 1948 to the fall of 1949.

Employment in construction, trade, finance, and service continued virtually uninterrupted at extremely high levels, except for normal seasonal fluctuations. Government employment rose during the year, largely because State and local governments expanded their activities. Farm employment also remained relatively steady and did not show any major effects of the reduction in industrial job opportunities.

Reduction in Hours of Work. Employment decreases during the first part of 1949 were accompanied by a significant shortening of the workweek, as overtime was eliminated in many plants and some workers were put on a part-time basis. Hours of work declined generally from the autumn of 1948 to the summer of 1949. At the low point of 1949, factory hours averaged less than 39 a week, fully an hour less than in the corresponding period of the previous year. This difference decreased in the autumn months as the level of production rose. Weekly hours dropped more sharply in the mining industries as the supplies of coal, iron, and nonferrous metals became ample. In construction, hours of work were fairly well maintained.

The Rise in Unemployment. The rise of unemployment during 1949 was in large part a reflection of the decrease in manufacturing activity. Total unemployment rose from a seasonal low point of 1.8 million in the last quarter of 1948 to more than 3 million in midwinter and to over 4 million at the seasonal high in July. After July, factory employment improved and unemployment dropped somewhat more than seasonally.

Almost every manufacturing area in the country felt the rise in unemployment. New England, with its heavy concentration of textile, leather, and machinery factories, was the most severely affected. In Rhode Island, as many as 20 percent of the workers covered by State unemployment insurance laws were drawing benefits in mid-1949. In some thirty-odd labor market areas, the number of unemployed constituted 12 percent or more of the labor force, according to the United States Employment Service. These areas were chiefly textile and leather centers in New England, coal or copper-mining areas in Pennsylvania, Illinois, Indiana, Michigan, and Alabama, and metalworking centers in New England and Michigan. Unemployment was also particularly heavy in New York, New Jersey, Maryland, the Carolinas, Kentucky, Tennessee, and California. In some States in the industrial Midwest, however, the volume of unemployment remained relatively low, although it had risen from previous levels.

Recognizing the seriousness of the unemployment problem in certain areas of the country, the President instituted a program of assistance to such areas in July. Under this program, the Government channels orders for materials and supplies or contracts for new construction to those areas, within the limitations of existing legislation. By the end of 1949, a considerable volume of Government orders had been placed in these localities and some unemployment relief resulted. In response to a letter from the Secretary of Labor, the governors of about 20 States indicated their intention to encourage the establishment of State and local full employment committees to deal with the problem of localized unemployment.

Changes in Terms of Compensation

The postwar inflation which had caused wages to be raised in practically all industries was halted in early 1949, and the upward wage movement became highly diversified. With business prospects somewhat uncertain, the economic position of the particular company, industry, and locality took on increased importance in wage negotiations.

Wage Changes. Although far fewer workers obtained wage increases in 1949 than in previous years, wage-rate increases negotiated in 1949 affected an estimated 5 million organized workers. A majority of these worked in nonmanufacturing industries. In general, wage increases were obtained more easily in local industries than in those of broader scope—that is, in industries dealing with a localized market and engaging in collective bargaining at the local or plant level. Such industries in which wage increases were numerous include: construction, trucking, street transportation, public utilities, printing, bakeries, and breweries. The largest single aggregate wage raise of the year, together with a reduced workweek, was won by a million railroad workers from negotiations starting in 1948.

Wage raises obtained in 1949 were generally smaller than had been negotiated in the three previous years. Except in construction and printing, both high-wage industries, and on railroads, the increases were generally less than 10 cents an hour. With a few small exceptions, no wage increase "patterns" were set in 1949, and certainly no national "pattern."

In manufacturing as a whole, the decline in hours during the first part of the year caused a reduction in premium payments for overtime, which largely offset the increase in wage rates.

Average hourly earnings of factory workers, which were $1.405 in January, changed little throughout the year. Factory weekly earnings fluctuated within a narrow range, as hourly earnings and weekly hours changed. Weekly earnings in many nonmanufacturing industries increased significantly, except for mining which was adversely affected by both the 3-day week and work stoppages in the coal industry.

Changes in the level of consumers' prices during 1949 were relatively minor; and workers' buying power, from the point of view of the purchasing power of the dollar, was not much affected. In previous postwar years, the real benefits of wage increases were lost to workers because of increased consumer prices.

In their negotiations for new wage agreements, many large unions shifted their emphasis away from wage-rate increases to pensions, insurance, and other supplementary benefits. The pension and social-insurance movement became widespread by the end of the year.

For the first time in the last decade, some organized workers were called upon to accept wage reductions in pay. These reductions resulted mainly from agreements tying wage rates to small changes in the BLS Consumers' Price Index. A few union locals agreed to a general cut in wage rates, but presumably wage cuts were more frequent among nonunion establishments in hard-hit industries.

Pensions, Insurance, and Other Supplementary Benefits. Growth of pension and social-insurance plans financed in whole or in part by employers was the outstanding union contract development in 1949. It was accelerated by the union-management dispute in the steel industry and the recommendations of the President's Steel Industry Board. The Board declared that adequate pensions and social insurance for workers should be part of the cost of doing business. The recommendations were for pensions and social insurance financed by the employers. Costs of pensions to the companies, including those currently in effect, the Board said, should be about $120 a year per worker, or about 6 cents an hour for a full year's work of 2,000 hours. Social-insurance programs other than pensions should cost the companies about $80 a year, or about 4 cents an hour per worker employed all year.

Bargaining in the steel industry collapsed over the issue of noncontributory pensions and a month-long steel strike resulted. In the settlements which ended the strike, it was agreed that pensions were to be financed wholly by the companies, but that social insurance—i. e., death, hospital, and welfare benefits—were to be paid for jointly by the companies and the workers.

The movement toward pension and insurance plans, predominantly company financed, had been in progress for several years. But the extensive publicity given to the Steel Board's recommendations and the subsequent adoption of pension and insurance plans by many of the country's important manufacturing companies gave special impetus to the spread of the movement. Most of the pension plans were not in operation at the close of the year, because considerable study was necessary before all details could be worked out.

Other types of supplementary benefits appeared in many of the union contracts negotiated during 1949. A noteworthy development was the lengthening of paid vacations (to 2 or 3 weeks) for workers with long years of service. In general, supplementary benefits were given considerably greater emphasis in 1949 than in previous years, partly because wage-rate increases were more difficult to justify on the basis of living costs than they had been for some years.

Wage Legislation. No single wage development in 1949 was more significant to low-paid workers and low-paying industries than the passage of the 1949 amendments to the Fair Labor Standards Act raising the minimum wage to 75 cents an hour. As of January 25, 1950, about a million and a half workers were to have their hourly pay raised to 75 cents. The new minimum rate will undoubtedly result, over a period of time, in increases to some workers who already earn more than 75 cents an hour.

The new law broadens and strengthens the act's child labor provisions and gives employees an additional method to enforce wage claims under the act through action brought by the Administrator on their written request to collect such claims. The effect of numerous changes that were made by the 1949 amendments in the act's coverage and exemption provisions will be difficult to evaluate until experience has indicated the full scope and impact of such changes.

Federal legislation raised the salaries of some 3 million Government employees, including armed services personnel, during 1949. Raises were in the nature of basic revisions of the classified and armed services pay scales and were generally small. Several hundred thousand wage-board (unclassified) employees of Government agencies also received increases during the year. General salary increases went to over a half million State, county, and municipal workers in 1949.

Labor-Management Relations

Strikes in 1949. Changing economic conditions led to a moderation of union demands for wage-rate increases and other benefits, but nevertheless a number of important strikes took place. The prolonged work stoppages in the coal and steel industries made the number of man-days of strike idleness during 1949 greater than in either 1947 or 1948. These strikes accounted for about 45 percent of the approximately 53 million man-days lost by stoppages in 1949. In addition, the two other industry-wide coal stoppages (one of 2 weeks and another of 1 week) accounted for over 4 million additional man-days of strike idleness.

The 15 other sizable stoppages involving 10,000 or more workers were of substantially less national importance. These included a 25-day stoppage of 62,000 Ford workers, a 44-day stoppage involving 27,000 employees of the Missouri Pacific Railroad, and a 35-day stoppage of 20,000 building construction workers in the Minneapolis-St. Paul area.

The first of the several stoppages in coal mining began in March with a 2-week "memorial" holiday, taken under a clause in the United Mine Workers contract. In a statement addressed to all miners east of the Mississippi, John L. Lewis, UMWA president, protested the appointment of James Boyd as director of the Department of Interior's Bureau of Mines and asked the miners to mourn the injuries and deaths of 55,000 miners during 1948. In June, Mr. Lewis ordered a week of "inaction" for the miners in order to reduce stocks of coal. No agreement on a new contract had been reached by the end of June when the old contract expired, and, departing from the UMWA policy of "no contract—no work," the miners east of the Mississippi were ordered to work on a 3-day week schedule. This continued until September 19 when the miners went on a "no day workweek." The strike was called off on November 9 until the end of the month, but in December the miners returned to their 3-day schedule.

In May, more than 100,000 Ford workers, in scattered plants throughout the country, were made idle as a result of a dispute over an alleged "speed-up" in assembly-line operations at the River Rouge plant. The strike was settled by an agreement to arbitrate the issue.

Protracted contract negotiations between the steel industry and the steelworkers' union ended in failure and, on October 1, about 500,000 steelworkers went out on strike. The union had accepted the recommendations of the President's fact-finding board for company-financed pension and social insurance plans with no wage increase, but some companies rejected the principle of pensions without contributions from employees. After the strike had lasted more than a month, the companies and the union agreed upon noncontributory pension plans and jointly financed social insurance.

Several relatively small strikes were extended over a long period. Local 16 of the Chicago Typographical Union (AFL), which had been on strike against the large newspapers since November 24, 1947, finally settled with the employers in September. The dispute was primarily over the security of the union as bargaining agent for employees under the closed-shop arrangement which had existed for many years in the printing industry. In a number of decisions at the end of the year, the National Labor Relations Board ruled that the union's closed-shop arrangements had been invalidated by the Taft-Hartley Act. A strike of machinists, members of the International Association of Machinists (Ind.) at Warner & Swasey Co. in Cleveland, Ohio, which began in December 1948, was settled at the end of June. The United Auto Workers (CIO) settled their 3-month strike against the Bendix Aviation Corp. at South Bend, Ind., at the end of June.

A number of important strikes were averted by collective-bargaining agreements. Of these, the most notable contract was signed in March between the railroads and 16 nonoperating unions, representing almost a million workers. The dispute, which had lasted nearly a year, was settled on the terms recommended by the President's fact-finding board on December 17, 1948. Employees affected by the contract received an

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hourly pay increase of 7 cents, retroactive to October 1, 1948. On September 1, 1949, the workers went on a 40-hour week at the same pay as they had previously received for 48 hours.

Union Developments. The repeal of the Taft-Hartley Act was the main concern of American trade-unions during the first 6 months of 1949. President Truman's position, stated in his "State of the Union" message to Congress in January, was for repeal of the act and the reenactment of the National Labor Relations (Wagner) Act with amendments. Such amendments would prohibit jurisdictional strikes and secondary boycotts, operate to prevent the use of economic force to decide issues arising out of the interpretation of existing contracts, and would provide means for settling or preventing strikes in vital industries which affect the public interest. Legislation embodying the President's program was the subject of extensive hearings and debate in both Houses of Congress but failed of enactment.

Union opposition to the law continued strong and all the major organizations intensified their political activity to defeat the legislative supporters of the act. However, compliance with the NLRB non-Communist affidavit requirement by both AFL and CIO unions increased as the year progressed.

CIO's fight against Communist leadership in certain member unions, which had been brought into the open at the 1948 convention, was climaxed at the convention in 1949. The majority adopted constitutional amendments to bar Communists, Fascists, and "their consistent followers" from membership in the CIO executive board and to expel unions for pro-Communist actions. The convention expelled from membership in the CIO the Farm Equipment Workers (FE) and the United Electrical, Radio and Machine Workers of America (UE). Committees were formed to try the other 10 unions accused of Communist domination and to recommend action to be taken by the executive board.

Both the AFL and the CIO supported the establishment of a non-Communist world labor organization to rival the Communist-led World Federation of Trade Unions. An international convention met in London at the end of November, including delegates from the AFL, CIO, and United Mine Workers. Delegates estimated to represent more than 48 million workers in 52 countries were in attendance. The new organization, the International Confederation of Free Trade Unions, chose Paul Finet of Belgium as President and J. H. Oldenbroek of the Netherlands as permanent Secretary General, and placed the permanent headquarters in Brussels.

Labor Legislation and Regulation

The Taft-Hartley Act and NLRB Decisions. Union hopes for a quick repeal of the Taft-Hartley law when Congress convened at the beginning of the year appeared justified after the sweeping victory of President Truman in the November 1948 election. But as the hearings on the proposed substitute measures dragged on into the spring, opposition to the President's program gained.

When Senate debate began in June, that branch of Congress was split into 3 groups: those supporting the President in his demands for the restoration of the Wagner Act with "improvements"; a bipartisan group who hoped to draft a compromise bill which President Truman would sign; and a group supporting Senator Robert A. Taft's new bill which, while it made 28 "perfecting" changes, retained most of the original Labor Management Relations Act.

The Taft bill, which the Administration and organized labor regarded as unacceptable, was approved by the Senate on June 30 by a vote of 51 to 42. The House did not act upon it.

Numerous precedents, affecting various sections of the Taft-Hartley Act, were established by National Labor Relations Board decisions during the year. Several significant decisions upheld the legislative prohibitions of various forms of the closed shop and secondary boycotts. The Board found that the National Maritime Union and the American Radio Association, both CIO unions, had violated the act by insisting upon hiring hall provisions which would in effect require the employers to discriminate against nonunion members. The U. S. Circuit Court of Appeals at New York upheld the Board's findings. The Board also found that a strike of the Amalgamated Meat Cutters and Butcher Workmen (AFL) for a closed-shop clause violated the act.

The International Typographical Union (AFL)

was also found to have violated the act by insisting upon closed-shop conditions in the newspaper publishing industry.

Peaceful picketing and the circulation of a blacklist by a union in furtherance of a secondary boycott was held by the NLRB to be an unfair labor practice under section 8 (b) 4 (a) and not protected free speech, under section 8 (c) of the act. Threats of violence against railroad employees by members of the International Brotherhood of Teamsters (AFL) during picketing activities were held by the Board not to be in violation of the secondary boycott provisions of the act because it does not cover railroad employees.

In a case involving discharge of an employee, the NLRB ruled that a local of the same union, as well as an employer, could be made liable for back pay to a reinstated employee who had been laid off because he failed to pay his union dues. As no union-shop agreement had been made valid by an election pursuant to section 9 (e) of the amended National Labor Relations Act, the Board held the discharge to be discriminatory.

Supreme Court Decisions. The constitutionality of several State laws which outlaw compulsory union membership was upheld by the Supreme Court of the United States. The Court found that there was no denial of due process of law in such State measures. The Court also held that the States could properly legislate against certain labor-union activities, although furthered by peaceful picketing.

A general pay increase granted to employees by an employer without consulting the certified union, was held to be an unfair labor practice under the Taft-Hartley Act by the Supreme Court. Another type of unfair labor practice, according to the high Court, was a company's refusal to permit a union to use the company's hall, the only one available in a company town, for union meetings.

The Court declined to review a decision of the U. S. Circuit Court of Appeals at Chicago, which had held that the Taft-Hartley law compelled employees to bargain with unions on retirement and pension plans.

In a decision affecting veterans' seniority, the Supreme Court decided that the terms of a new collective-bargaining agreement could take precedence over the seniority granted to veterans under the GI bill of rights.

State Labor Legislation. State legislatures were very active in the field of labor legislation during 1949. Each of the 44 State legislatures which met in regular session and Alaska, Hawaii, and Puerto Rico passed some measure affecting labor.

Child-labor laws, passed in Maine, Tennessee, and Alaska, established a basic minimum age of 16, with a minimum of 18 for some hazardous occupations. In New York and Washington, certain provisions of the child-labor laws were improved; but, in Ohio, Indiana, and Wisconsin, certain child-labor standards were lowered.

Legislation covering workers' safety was enacted in several States during the year. In Oklahoma and Michigan, laws relating to factory inspections were improved. Vermont and West Virginia passed laws relating to the control of occupational diseases and industrial health hazards. New York and Washington passed disability-compensation laws.

Two States—New Hampshire and Massachusetts—passed minimum-wage laws for men, women, and children. Maximum-hours provisions for women were improved in Maine, Tennessee, and Wyoming. Laws specifying the payment of the same rates for women as for men doing comparable work were passed in California, Connecticut, Maine, and Alaska.

All of the 44 States and Hawaii passed acts improving in one or more respects their workmen's compensation laws. In most of the States benefits were raised. The Federal Employees' Compensation Act was also liberalized.

In Idaho, South Dakota, and Montana, laws were passed relating to the creation of separate agencies to enforce labor laws. New York amended its law relating to the general powers and duties of the industrial commissioner.

Acts restricting union activities, which had been passed in 1947, were repealed in Delaware, Missouri, and New Hampshire. Michigan's Labor Relations Act was made less restrictive.

Fair employment practice acts were passed in four States—New Mexico, Oregon, Rhode Island, and Washington. New Jersey amended its FEPA, and California passed an act which prohibits the inclusion of any question relative to an applicant's race or religion on any application form. Committees to study the subject of discriminatory practices in employment were authorized in Kansas and Nebraska.

Programs of Public Assistance In the United States[1]

EDITOR'S NOTE.—*This article on public assistance programs in the United States is the third in a series of four written by specialists in different branches of the social security field. Two articles—on the public insurance systems covering old-age and survivorship and unemployment—appeared in the January 1950 issue of the Monthly Labor Review, and the fourth will be printed in the near future.*

ABOUT 1 person in 30 in the United States is dependent upon public assistance for full or partial support. The annual cost of assistance is more than 2 billion dollars—about 1 percent of the national income payments to individuals in 1948. Approximately half the cost is borne by the Federal Government, the remainder by the States and localities. The Federal appropriation for public assistance for the current year is the largest single budget appropriation for current expenditures for any program not connected, directly or indirectly, with national defense. In most States, the amount appropriated for public assistance is one of the largest items in the State budget.

Public assistance supplements the income and resources of needy persons in order that they may be able to obtain the essentials of living. Assistance programs are residual and have a function to perform only to the extent that other measures, such as minimum wage laws, programs for full employment, and the social insurances, fail to avert need.

Public assistance is of four major types—old-age assistance, aid to the blind, and aid to dependent children, which come under the Social Security Act, and general assistance, which is currently a responsibility only of the State and local governments. The number of recipients of aid in relation to the population groups at risk and the average monthly payment in June 1949, and amounts spent in relation to population for assistance in the fiscal year 1949 are shown, by program for each State in the accompanying table.

General assistance had its origin in the Elizabethan poor laws and in this country dates back to Colonial times. The special types of public assistance, on the other hand, are a development of the twentieth century.

The depression of the 1930's had far-reaching effects on public assistance legislation and programs. During 1933–35, for the first time, the Federal Government made grants to States for general assistance (or general relief) and in whole or in part, financed other programs designed to provide work for unemployed persons determined or presumed to be needy. In 1935, both emergency and permanent legislation was enacted, establishing a network of income-maintenance programs. A part of the 1935 legislation was the Social Security Act, which provided on a continuing basis for (1) grants to States to help them to finance cash assistance to needy aged and blind persons and dependent children, and (2) a Federal-State system of unemployment compensation and a Federal system of old-age and survivors insurance.

The assistance provisions of the Social Security Act—amended in 1939, 1946, and again in 1948—supply the basic framework within which State programs of old-age assistance, aid to the blind, and aid to dependent children are established and operate. All States are receiving Federal grants for old-age assistance, all but one for aid to dependent children,[2] and all but four for aid to the blind.[3] Since 1935, general assistance has not come within the scope of Federal legislation.

Certain conditions which a State must meet in order to get Federal funds for special types of public assistance are established under the Social Security Act. But substantial latitude is allowed to the States under the law in determining how their programs shall be organized and administered, who shall be eligible for assistance, and how much assistance eligible persons shall receive.

[1] By Anne E. Geddes, Chief, Division of Statistics and Analysis, Bureau of Public Assistance, Social Security Administration, Federal Security Agency.

[2] The exception is Nevada.

[3] The exceptions are Alaska, Missouri, Nevada, and Pennsylvania. Alaska has no program for needy blind persons; the remaining jurisdictions have blind aid programs operated outside the Social Security Act.

The characteristics of the individual plans for the operation of the programs vary from State to State in many respects, reflecting differences in philosophical attitudes, economic resources, and established patterns of State and local governments.

Although the determination of need is common to all assistance programs, the policies, standards, and procedures for such determinations vary not only from State to State, but often within a State from program to program. Each State decides what goods and services needy people require to live on, how much it will allow for such goods and services, and how to evaluate each individual's resources in relation to the cost of these essentials. The difference between the cost of what individuals require and the value of their resources represents the amount of assistance needed.

Recipient rates and average assistance payments, June 1949, and average assistance [expenditures payment] per inhabitant, fiscal year 1949, by program and State

State	Old-age assistance			Aid to dependent children				Aid to the blind [1]		General assistance		
	Recipient rate, June 1949 [2]	Average assistance payment, June 1949	Assistance expenditure per inhabitant, fiscal year 1949	Recipient rate, June 1949 [3]	Average assistance payment, June 1949		Assistance expenditure per inhabitant, fiscal year 1949	Average assistance payment, June 1949	Assistance expenditure per inhabitant, fiscal year 1949	Recipient rate, June 1949 [4]	Average assistance payment, June 1949 (per case)	Assistance expenditure per inhabitant, fiscal year 1949
					Per family	Per child						
United States	231	$43.60	$8.63	29	$72.71	$28.58	$2.84	$45.02	$0.31	----------	$47.92	$1.59
Alabama	456	22.61	6.25	30	36.28	13.32	1.77	25.02	.12	(5)	16.88	.43
Alaska	(6)	55.97	(6)	(5)	69.64	29.07	(6)	(7)	(6)	(6)	28.11	(6)
Arizona	290	54.86	9.67	34	92.70	32.78	3.87	63.07	.77	2.9	36.74	1.09
Arkansas	403	20.95	6.50	39	37.17	14.43	2.33	24.64	.25	1.9	12.28	.20
California	262	70.55	15.99	18	113.70	50.97	2.63	82.54	.76	8.8	50.06	2.01
Colorado	433	67.08	34.56	35	76.61	28.15	4.01	55.79	.21	6.6	38.09	1.98
Connecticut	100	54.01	5.14	15	100.38	41.36	1.85	47.77	.05	(5)	50.45	1.25
Delaware	63	28.06	1.56	17	72.09	24.57	1.30	37.16	.19	(5)	35.10	1.43
District of Columbia	45	41.67	1.54	24	79.75	26.32	1.84	43.86	.14	1.8	46.47	.85
Florida	340	40.19	12.22	69	41.95	17.13	4.07	42.21	.61	(5)	(5)	.35
Georgia	502	20.54	6.88	25	40.85	15.85	1.55	25.75	.22	1.8	15.56	.20
Hawaii	121	35.33	1.81	32	92.20	31.03	3.62	38.75	.08	8.1	54.29	1.73
Idaho	244	46.57	9.70	26	94.97	37.59	3.78	51.56	.21	1.3	31.08	.50
Illinois	186	44.87	7.71	27	101.27	39.87	3.22	46.87	.29	9.5	55.59	2.32
Indiana	141	35.22	5.24	19	55.93	22.62	1.42	37.60	.21	8.1	26.80	1.57
Iowa	186	48.08	10.21	16	62.78	24.50	1.28	52.88	.28	3.9	26.56	.52
Kansas	198	50.10	9.96	24	82.80	32.08	2.51	52.14	.23	5.3	44.96	1.47
Kentucky	294	20.83	4.61	45	38.43	15.27	2.61	22.13	.18	2.7	21.13	.20
Louisiana	810	47.05	23.86	65	59.08	22.77	5.10	42.31	.31	10.5	39.06	3.16
Maine	158	41.34	6.41	32	81.21	29.43	3.15	42.11	.32	10.1	39.03	1.71
Maryland	78	36.88	2.37	24	82.95	27.39	2.39	40.83	.10	2.4	42.61	1.05
Massachusetts	214	61.13	14.04	22	112.84	46.27	3.12	60.65	.19	9.8	49.09	2.32
Michigan	216	42.88	7.45	29	86.05	37.18	3.66	45.83	.14	14.2	49.16	2.83
Minnesota	218	47.15	9.97	21	69.17	27.29	2.03	55.26	.23	7.4	45.26	1.42
Mississippi	480	18.80	5.18	25	26.49	9.79	1.08	25.79	.34	.4	10.90	.03
Missouri	335	42.57	15.21	52	53.50	20.99	3.55	[9] 35.00	[9] .31	9.4	31.14	1.38
Montana	259	44.93	11.24	31	72.42	28.19	3.27	46.23	.49	4.3	30.76	1.04
Nebraska	198	42.00	9.24	20	84.01	35.19	2.50	49.85	.24	2.6	30.47	.46
Nevada	220	54.05	8.79	[9] 2	(10)	(10)	[9] .11	(10)	[9] .09	4.3	23.94	.56
New Hampshire	132	43.48	6.76	24	87.47	34.61	2.55	46.77	.32	8.7	39.48	1.34
New Jersey	66	47.80	2.62	11	84.20	32.48	1.02	53.04	.08	5.7	55.71	1.02
New Mexico	336	34.22	6.54	52	52.53	20.48	5.16	38.19	.34	4.3	22.88	.92
New York	103	52.74	5.04	33	107.20	46.24	4.42	59.46	.18	12.1	73.16	3.91
North Carolina	281	21.55	3.18	23	41.48	14.72	1.34	30.09	.32	2.2	14.75	.18
North Dakota	191	46.56	7.97	20	97.97	36.46	3.23	45.99	.11	2.3	35.84	.62
Ohio	185	46.72	8.57	15	61.92	22.82	1.24	44.79	.23	11.1	45.70	1.90
Oklahoma	601	52.10	26.00	78	52.20	20.62	6.25	53.18	.70	(5)	(5)	.42
Oregon	153	48.21	7.74	18	107.48	42.73	2.27	55.66	.15	7.7	54.20	2.83
Pennsylvania	109	40.01	3.91	39	91.34	35.32	4.34	[9] 39.97	[9] .69	7.1	53.37	1.84
Rhode Island	158	45.04	6.57	38	85.77	34.66	3.93	51.05	.12	14.5	52.03	3.01
South Carolina	392	24.70	5.02	26	35.51	12.46	1.41	28.73	.22	3.2	16.17	.44
South Dakota	235	38.02	8.56	24	55.36	22.48	1.91	34.57	.14	2.9	23.83	.37
Tennessee	286	27.15	5.57	43	48.14	17.88	3.12	36.13	.28	1.2	13.72	.09
Texas	461	34.23	11.51	18	47.18	17.00	1.19	38.58	.36	(5)	(5)	.12
Utah	251	50.27	8.84	32	106.68	42.01	6.07	54.53	.18	4.7	54.61	2.04
Vermont	182	32.13	7.44	22	48.36	17.80	1.38	35.67	.24	(5)	(5)	1.01
Virginia	96	20.28	1.34	17	44.15	15.55	1.03	27.47	.14	(5)	22.99	.37
Washington	316	67.11	20.28	36	135.44	57.37	5.44	77.59	.25	9.9	67.58	4.63
West Virginia	199	21.35	2.97	47	43.53	16.10	3.10	25.02	.13	3.1	15.15	.34
Wisconsin	171	41.60	7.05	20	95.17	37.93	2.57	45.38	.20	5.7	43.71	1.01
Wyoming	227	55.63	9.45	14	97.11	35.83	1.80	55.46	.23	3.0	46.83	.98

[1] Recipient rate not available; number of blind persons not known.
[2] Persons aided per 1,000 population 65 years of age and over.
[3] Children aided per 1,000 population under 18 years of age.
[4] Persons aided per 1,000 civilian population.
[5] Number of persons aided is not available.
[6] Population data are not available.
[7] No program.
[8] Not computed because number of cases was estimated.
[9] Program administered under State laws without Federal participation.
[10] Not computed; base too small.

However, limits established by law or policy on the amount of assistance an individual may receive monthly often reduce payments below the amount that budgetary procedures determine to be needed. Shortages of funds also may necessitate reduction in individual payments below the amount the State finds to be needed or below the maximum fixed.

Extent of Assistance

In June 1949, more than 5 million persons in the United States were receiving all or a part of their income from public assistance. Of these, 2.6 million persons, or about a fourth of all persons 65 years of age or over, were receiving old-age assistance. About 1.4 million children under 18 years of age, or fewer than 3 per 100 children in the population, were receiving aid to dependent children. In addition, in most families that received aid to dependent children the funds helped to support one or more adults. The number of persons on the general assistance rolls was 1 million or 7.6 per 1,000 in the civilian population. About 90,000 blind persons, or slightly more than a third of the estimated blind population, were receiving aid to the blind.

National rates conceal striking interstate differences. They are explained by variations in the income-status of the population; by differences in the amount of protection afforded against the risks of unemployment, premature death of the wage earner, and old age retirement by the social insurance systems; and by State attitudes toward meeting need.

The proportions of aged and blind population and of children on the assistance rolls tend to be disproportionally high in the lower-income States, which are predominantly agricultural, and where many workers are in employments that are not covered by unemployment and old-age and survivors insurance. In relation to population, general assistance loads are relatively low in these same States. This seemingly anomalous situation is explained by the fact that Federal funds—and often State funds—are not available for financing general assistance, whereas they are available for the special types of aid.

For old-age assistance, the average monthly payment per recipient in mid-1949 was $44, with a range from $19 in Mississippi to $71 in California. Aid-to-the-blind payments averaged $45, with an even greater spread, from $22 in Kentucky to $83 in California. For aid to dependent children, the average payment per family was $73; Mississippi's average was $26, in contrast to $135 in the State of Washington. The average payment per general-assistance case was $48; New York topped the States with a $73 average payment whereas Mississippi's average was only $11 a month.

In measuring the adequacy of assistance, the amount of the recipient's other income in cash and in kind is important. No up-to-date and comprehensive information is available on this subject but earlier studies shed some light on the extent to which assistance and other income supplement each other.

For example, a study of the Requirements and Incomes of Recipients of Old-Age Assistance in 21 States in 1944 showed that about one case in four had cash income from sources other than the assistance payment. This income was derived from earnings, contributions from relatives, Old-Age and Survivors Insurance (OASI) benefits, and other sources. The amounts of such cash income were small. In all cases consisting only of the recipient, the average amount was $2.46 a month; for all cases consisting of the recipient and spouse, the average amount was $7.49. The cash income from sources other than assistance of cases with some such income was as follows: $11.42 for cases consisting only of the recipient and $14.43 for cases consisting of the recipient and spouse. Nearly two cases in five had some income in kind, such as rent-free shelter and produce raised and consumed. Of the latter cases more than one in three had income in kind valued at less than $5 per month.

A 1942 Study of Family Income of Families Receiving ADC in 16 States indicated that about two families in three had some cash income in addition to the assistance payment. This additional income was obtained primarily from earnings and contributions of relatives. Somewhat over half of the families had some nonmonetary income. About one family in four had housing that was rent-free or supplied in return for services.

Old-age and survivors insurance has become a more important source of cash income than at the time of the two foregoing studies. In June 1948, of all recipients of old-age assistance, 6 percent were also receiving benefits under old-age and

survivors insurance. Of the ADC families, about 5 percent were OASI beneficiaries.

Trends in Assistance

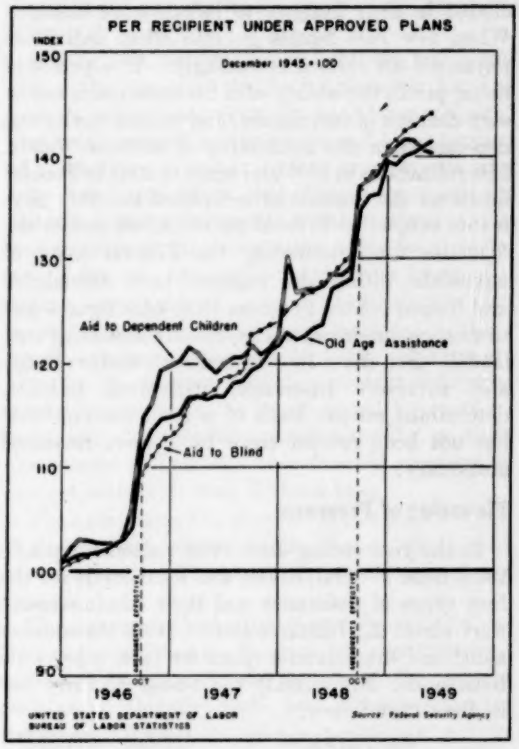
The assistance rolls are characteristically responsive to changing economic conditions and to changes in other programs for income-maintenance. During World War II years, substantial numbers of old people and families with dependent children went off the rolls because family members found jobs as the result of acute manpower shortages and because they received allowances authorized for dependents of servicemen. The number of general assistance cases was more than halved. Since VJ-day, the number of persons dependent on public aid has been steadily mounting. Factors in the upswing have been population growth and postwar adjustments. With the cessation of production for war and the return to civilian pursuits of millions of men in the armed forces, many inexperienced young workers and adults with limited skills were pushed out of employment, and, in some cases, left the labor force. The termination of dependents' allowances with the separation of servicemen from the armed forces also contributed significantly to the rise in assistance loads.

The effect on assistance rolls of temporary changes in economic conditions is exemplified by recent rising case loads in coal-mining and steel-production centers. In these areas, strikes in the coal and steel industries and the stoppage of benefit payments under the United Mine Workers' fund all contributed to the case load.

In many States, old-age and survivors insurance is gradually gaining over public assistance as a means of providing income-maintenance to certain groups. Although in the country as a whole the number of recipients of old-age assistance in June 1949 was 147 per 100 aged beneficiaries of old-age and survivors insurance, in 15 States the number of aged OASI beneficiaries exceeded the number of OAA recipients. Moreover, in 42 States the number of child beneficiaries of old-age and survivors insurance (i. e., unmarried children under 18 years of age) exceeded the number of fatherless children receiving aid to dependent children. In the Nation, 191 children were receiving old-age and survivors insurance per 100 fatherless children on the ADC rolls. In two States, the number of child beneficiaries of old-age and survivors insurance exceeded the total number of children aided under the program for dependent children (including those with an incapacitated parent or a parent absent from home, as well as those with a parent dead).

It is difficult to determine the degree of success of unemployment insurance in the prevention of need among unemployed workers and their families. The reason is that, many places, general assistance agencies fail to provide aid to employables, however dire their distress, and consequently the need is not expressed. In some of the more industrial areas where needy unemployed persons can get general assistance, relatively few of the cases accepted for aid are in need because they have exhausted their unemployment benefits. In 18 States (both agricultural and industrial), less than 3 percent of the cases added to the rolls in the first half of 1949 were accepted on discon-

Chart 1. Average Assistance Payments



tinuance of unemployment benefits. Much of the need among families with employable members resulted from one of two causes: loss of employment because of the disablement of the wage earner, a risk insured under the unemployment insurance programs of only a few States; or lay-off from employment that is excluded from coverage under the unemployment insurance laws.

Flexibility is inherent in public assistance. Payments are determined on the basis of standards that are usually established administratively rather than by law. From time to time, State agencies adjust the cost figures for the items included in their budgets to reflect price changes. When new cost figures go into effect individual payments are revised accordingly. In a period of rising prices the ability of a State to make necessary changes in cost figures, and thus in payments, depends upon the availability of sufficient funds. Liberalizations in 1946 and again in 1948 in Federal limits on the amount of individual monthly payments subject to Federal participation and in the formulas for determining the Federal share of payments within the maxima have stimulated and helped States to revise their cost figures and to finance larger payments, despite mounting case loads. (See chart 1.) In contrast, under old-age and survivors insurance, individual benefits, determined on the basis of a fixed formula that has not been revised since 1939, have remained stationary.

Financing of Programs

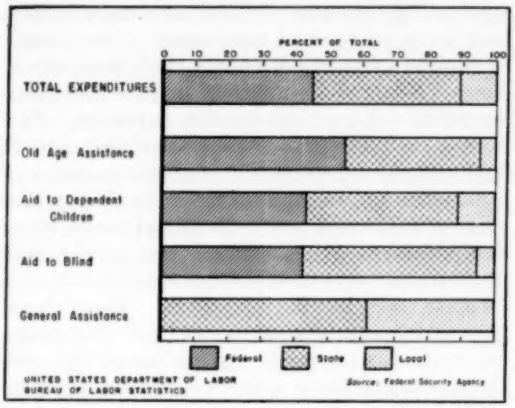
In the year ending June 1949, national expenditures from Federal, State, and local funds for the four types of assistance and their administration were about 2.1 billion dollars. Both the number aided and the amounts spent for each type of aid both under and outside the Social Security Act in June 1949 follow.

Type of program	*Number of recipients*	*Expenditures for payments (In thousands)*
Old-age assistance	2,626	$114,463
Aid to dependent children:		
Families	537	39,027
Children	1,366	
Aid to the blind:		
Under Social Security Act	71	3,311
Outside Social Security Act	18	710
General assistance	461	22,085

Expenditures by each level of government for the different types of aid are shown in chart 2.

In relation to population the largest State expenditures for the fiscal year for the 4 types of assistance were 14 times the smallest. Colorado's expenditures amounted to $40.76 per inhabitant and Virginia's to $2.88. For the country as a whole, expenditures per inhabitant totaled $13.37.

Chart 2. National Expenditures for Public Assistance, Year Ending June 1949



Federal funds for public assistance are appropriated from general revenues, unlike those for old-age and survivors insurance and unemployment insurance which are derived from pay roll taxes. Under the provisions of the Social Security Act, the Federal appropriations for old-age assistance, aid to dependent children, and aid to the blind are open-ended and the Federal Government meets its share of whatever amounts the States spend, so long as the expenditures are made in compliance with the conditions laid down in the Federal Act and under plans of operation approved by the Social Security Administration. State funds for public assistance are derived from both general revenues, and earmarked taxes. In the individual localities, the real estate tax is the chief revenue source.

Patterns of financing public assistance vary greatly among the States and often, within a State, among programs. Only Federal and State funds are used for old-age assistance in 31 States,

for aid to dependent children in 23 States, and for aid to the blind in 34 States. In the remaining States, local funds bear a share of the cost and often are an important factor in determining the amount of Federal and State funds that may be spent within the particular locality. General assistance in 6 States is financed from State funds only, in 31 States from State and local funds, and in 14 States solely from local funds.

Program Changes Under Discussion

The Congress has given extensive consideration to Social Security legislation and to the relative roles of public assistance and the social insurances in the broad social security system of the Nation, in the past few years. In 1946, the Committee on Ways and Means of the House of Representatives held extensive hearings on social security bills. In 1947–48, an Advisory Council on Social Security to the Senate Committee on Finance studied the limitations of the Social Security Act and made recommendations for amendment of the assistance and social insurance provisions of the act. In 1949 the Committee on Ways and Means of the House of Representatives held hearings on H. R. 2892, an administration-sponsored bill to amend the assistance provisions of the Social Security Act. The principles contained in H. R. 2892 were endorsed by the American Public Welfare Association. The Committee on Ways and Means reported out H. R. 6000 which would amend the act along lines that the committee deemed most desirable. Early in 1950, hearings were scheduled to be held by the Senate Committee on Finance on H. R. 6000 and related bills. Some of the major gaps and deficiencies of existing legislation and measures recommended by the Advisory Council or contained in H. R. 6000 for extending and strengthening the assistance programs are discussed below.

Coverage. For many years, the Social Security Administration has recommended to Congress extension of the assistance provisions of the Social Security Act to include any needy person and not merely the needy aged, blind, and certain dependent children. When the act was originally passed it was generally assumed that the States, without Federal help, would provide for needy persons who could not qualify for aid under the Federally aided categorical programs. Although every State furnishes some general assistance, conditions of eligibility are extremely restrictive in many of them. In those States which have programs financed wholly or almost entirely by the localities, each locality establishes its own conditions of eligibility. Some localities are entirely without general assistance. Furthermore, in many States and localities the amount of aid a needy individual or family can get is exceedingly meager. For the most part, the needy people who must look to general assistance for their maintenance receive less than those for whom the Federal Government has assumed a share of the responsibility.

Among the needy persons who do not come within the scope of the Social Security Act are persons of advanced years not yet 65 years of age; persons 65 years of age and over and blind persons who are living in public institutions; persons who have handicaps other than blindness or are ill; children living with parents or other relatives who lack support or care for reasons other than death, incapacity, or continued absence from home of a parent; unemployed persons not eligible for unemployment insurance; and marginal workers whose earnings are insufficient for self-support. Most of the persons receiving general assistance in the Nation are ill or handicapped for employment and do not differ fundamentally in their characteristics from the more favored groups who can get assistance with Federal help.

The assistance provisions of the act do not apply to Puerto Rico and the Virgin Islands where need is widespread and resources for meeting need are limited.

The Advisory Council on Social Security to the Senate Committee on Finance has recommended extension of grants-in-aid to States for general assistance, though with less liberal financial participation than in old-age assistance, aid to dependent children, and aid to the blind. The Council also recommends covering recipients of old-age assistance who are living in public medical institutions—a group currently excluded. The elimination of all residence requirements, except for a 1-year requirement in old-age assistance, is also advocated.

Under H. R. 6000, the Committee on Ways and Means of the House of Representatives would provide somewhat less extension of coverage.

The bill would create a new category of assistance for needy persons who are permanently and totally disabled. H. R. 6000 would also authorize Federal participation in assistance to recipients of old-age assistance, aid to the blind, and aid to the permanently and totally disabled living in public medical institutions; would reduce to 1 year the maximum residence that could be required in aid to the blind and establish a 1-year maximum in aid to the permanently and totally disabled; and would extend the assistance provisions of the act, with some modifications, to Puerto Rico and the Virgin Islands.

Assistance Payments. The Social Security Administration is greatly concerned over the wide disparity that exists in Federal maxima in aid to dependent children on the one hand, and in old-age assistance and aid to the blind on the other. The Social Security Act limits the amount of a monthly ADC payment in which it can participate to $27 for one child in a family and $18 for each child beyond the first. No specific recognition is given to the needs of the parent or other relative with whom the child is living. The maximum amount subject to Federal participation in old-age assistance and aid to the blind is $50 for each recipient. State agencies have made great effort to provide assistance to dependent children on the basis of standards reasonably related to what it costs to live. A little more than half of all ADC payments in the country are greater than the amounts in which the Federal Government shares. In 26 States, three-fourths or more of all payments exceed these amounts.

Both the Advisory Council and the Committee on Ways and Means have indicated that the Federal maxima in aid to dependent children should be liberalized. The Advisory Council recommends limits of $50 for each of two eligible persons in a family and $15 for each additional person beyond the second. The needs of adult members of the family as well as of the children would be taken into account. H. R. 6000 would authorize taking into account the needs of one adult in the family and would establish maxima of $27 for each of two persons in the family and $18 for each additional person.

In programs of the magnitude of public assistance, the method of determining the Federal share of assistance costs within the maxima also has important fiscal implications for both Federal and State governments. Under the original Social Security Act and under the act as amended in 1939, 1946, and 1948, very wide State variations in the levels of payments have existed in each assistance program. In July 1949, the ratio of the highest State average payment to the lowest was roughly four to one in old-age assistance and aid to the blind and five to one in aid to dependent children. In general assistance, which is outside the provisions of the Social Security Act, the ratio is nearly seven to one. In general, average payments are low in low-income States and high in high-income States. The disparities in levels of payments are greater than can be explained by differences in living costs or the extent of resources among recipients. To enable the States with low economic capacity to raise their assistance payments, the Social Security Administration has recommended variable grants to States under a formula that would relate the Federal share to the economic resources of the State.

Under existing formulas, matching is provided on a basis that results, proportionately, in a larger Federal contribution in States with low levels of payments than in those with high levels. In old-age assistance and aid to the blind, for example, the Federal share is three-fourths of the first $20 of the average payment and half of the balance up to $50. Thus, if payments in a State average $20 and no payments of over $50 are made, the Federal share is three-fourths. If the average of matchable payments is $45, the Federal share is 61 percent. A State with meager economic resources can get a high proportion of Federal funds only by keeping its payments low. An appropriate variable grant formula would enable the low-income States to make more nearly adequate payments than they can under current requirements, since the Federal share would not diminish as payments rise, provided they remain within the set limits. The Administration bill H. R. 2892 contained a variable-grant formula in which the Federal percentages were related to State per capita income.

The Advisory Council did not recommend any change in the basis of determining the Federal share of payments in old-age assistance and aid to the blind. It did recommend a higher Federal share in aid to dependent children.

The formulas in H. R. 6000 are of the same general type as those already effective, but would provide for more liberal Federal participation than that existing. In old-age assistance, aid to the blind, and aid to the permanently and totally disabled, for example, the Federal share would be four-fifths of the first $25, half of the next $10, and a third of the next $15 of the average monthly payment. Adoption of this formula would result in a substantial rise in Federal participation in States with low payment levels.

Both the Federal and State governments are concerned about the mounting bill for public assistance. The Committee on Ways and Means in its report on H. R. 6000 has requested the Social Security Administration to study the problem of relative responsibility and to report on the findings. States vary greatly in their policies governing the responsibility of relatives to support their needy kin. As of early 1950, two States prohibited the staff of the public assistance agency from asking legally responsible relatives whether they are able or willing to contribute to the support of an aged person. At the other extreme, some States assume that income is contributed, whether or not it is.

Medical Assistance. The Social Security Act currently makes it extremely difficult for States to provide effectively for the medical needs of recipients. The Federal Government can now share only in the cost of money payments to recipients (within the maximums). States often find it desirable to make payments directly to the hospital, clinic, or doctor for medical care supplied to a recipient, particularly when bills are sizable. Moreover, within the maxima, only a small amount can be included in the money payment to provide for medical care, if a recipient has no resources to meet his maintenance needs. Thus the recipient may find it necessary to pay his bill in small installments over a long period of months—an arrangement that is highly unsatisfactory to recipients, suppliers of services, and assistance agencies alike. The Administration bill H. R. 2892 would provide for Federal sharing of the cost of medical assistance to a monthly maximum of $6 per adult and of $3 per child.

The Advisory Council recommends provision for matching of expenditures for medical assistance for recipients of the three special types of public assistance, but not for general assistance, under maxima similar to those in H. R. 2892. H. R. 6000 would authorize Federal sharing in payments made by assistance agencies to individuals and agencies supplying authorized medical services to recipients. The maximum monthly amount paid to or in behalf of an individual for cash and medical assistance in which the Federal Government would share would be limited to $50 under the programs for old-age assistance, aid to the blind, and aid to the permanently and totally disabled.

Future Role of Assistance

In the future, the role of public assistance in providing income-maintenance will depend upon the decisions that are made by the Congress with respect to social insurance. Unemployment insurance and old-age and survivors insurance have already been effective in keeping large groups of persons from want. Because of the limitations of coverage of the insurance programs and the inadequacy of benefits (especially in old-age and survivors insurance), the need for assistance is greater than those concerned with the system had anticipated would exist almost 15 years after the enactment of the initial social security legislation. Extension of coverage of the programs of old-age and survivors insurance and unemployment insurance to provide for persons currently in excluded employments, liberalization of the benefit formulas, provision of benefits for temporary and extended disability, and the establishment of a system of health insurance would greatly reduce the burden of public assistance. Even with an adequate and comprehensive system of social insurance, some assistance would always be needed. Some persons would still not be covered by the system, some would exhaust their benefits before becoming self-sustaining, and some getting benefits would require supplementary assistance to meet exceptional needs.

Summaries of Studies and Reports

Reports and Recommendations of the President and the CEA[1]

THE POTENTIAL RESOURCES of the American economy can materially banish poverty from the United States, if labor, business, and farmers all pull in the same direction within a "favorable" environment set by government. This is the underlying view expressed in the recently issued annual economic reports of the President and of the Council of Economic Advisers and in the President's annual message on the State of the Union delivered to Congress early in January 1950.

Council of Economic Advisers' Report

In the fourth annual report of the Council of Economic Advisers, submitted to President Truman on December 27, 1949, it is recognized that the further expansion of the American economy depends largely upon the development of mutual understanding on the part of business and government. The report is, in short, an appraisal of their past cooperation as well as an appeal for continued efforts in that direction to raise the standard of living to a level at which economic resources are fully utilized.

In repudiating the secular stagnation theory that was widely held in the 1930's, the Council points to the dynamic growth of the economy during recent years, characterizing it as a period in which "free enterprise and free government have blended their varying strains into a rewarding effort."

Some new trends in the attitude of government toward business are noted by the Council, although government "has always been favorable, in the sense that responsible public servants have always wanted our free-enterprise system to thrive and prosper." The belief that "the forces of business expansion had spent themselves and that government must provide the dynamic force for renewed growth" has been replaced "by the firm conviction that our business system and with it our whole economy can and should continue to grow." The expansion of production in recent years has shown government that "efforts to promote expansion of the total production and income of the economy are more significant than measures to 'redistribute' the current product." A realization that social objectives should be viewed against "the central objective of a stable and expanding economy" is also discernible. It is then possible for certain social groups to "seek that share of the total product which is most conducive to the progress of the whole economy and thus to their own best interests in the long run."

The most important change in the Government's position, continues the report, is the growing conviction that attempts to stabilize the economy at a high level require the concerted efforts of business as well as government. "Within enormous areas of action and decision, business holds within its own hands the factors which condition its course. This is the essential nature of a free-enterprise system, and business should be encouraged when government recognizes this cardinal fact."

Business, which is pragmatic in its approach to economic problems, has benefited from its experiences in the war effort, the report points out. The Council discerns "a trend which is distinctly propitious to mutual accommodation and adjustment." The view that government should "create a favorable environment for business," a recognition by business of the complexity of the modern

[1] Information is from Business and Government—The Fourth Annual Report to the President by the Council of Economic Advisers, Washington, December 1949; The Economic Report of the President to the Congress, January 6, 1950, together with a report, The Annual Economic Review, by the Council of Economic Advisers, Washington 1950; and from the message of the President to Congress on the State of the Union, White House release January 4, 1950.

economy, and "a better understanding by the business community of the problems of government" are cited as examples of the trend in that direction.

Despite this converging of thought on economic problems, the report advises that "a still better understanding between business and government would result if the excessive separation were lessened between 'economic' and 'social' programs—between a government interested in encouraging the growth of the economic system and a government interested in 'welfare.' Those who quite appropriately raise the question of how much 'welfare' is going to cost, or whether our economy can stand that cost, clearly recognize that programs of social security which involve billions of dollars in taxes and in public outlays cannot be divorced from economic considerations." Business, in its turn, "needs to embrace even more fully—as its enlightened leadership has already done—the goal of continuous maximum production and employment."

Statements of the President

President Truman, in his annual state of the Union message to a joint session of Congress on January 4, foresaw great increases in the American standard of living if "we can continue in the spirit of cooperative adventure which has marked the recent years of our progress." Assuming an increasing rate of output comparable to that of the last 50 years and allowing for the expected growth in population, the President claimed that "the real income of the average family in the year 2000 A. D. would be about three times what it is today."

But, he continued, "We cannot achieve these gains unless we have a stable economy and avoid the catastrophe of boom and bust that have set us back in the past * * * unless our businessmen maintain their spirit of initiative and enterprise and operate in a competitive economic system * * * unless working men and women and their unions help to increase their productivity and obtain for labor a fair share of the benefits of the economic system * * * unless we have a stable and prosperous agriculture * * * [and] unless we can conserve and develop our natural resources in the public interest."

"In achieving these gains," the President pointed out, "the Government has a special responsibility to help create and maintain the conditions which will permit the growth we know is possible * * *. Businessmen must continue to have incentives necessary for investment and development of new lines of enterprise * * * free collective bargaining must be protected and encouraged. Collective bargaining is not only a fundamental economic freedom for labor. It is also a strengthening and stabilizing influence for our whole economy."

With a view to strengthening these and other conditions considered necessary for the growth of the American economy which he mentioned in his message, the President made a number of specific recommendations. They included the repeal of the Taft-Hartley Act, assistance to small business, extension of rent control, which the President considered "still necessary to prevent widespread hardship and sharp curtailment of the buying power of millions of consumers in metropolitan areas," increase in benefits and coverage of old-age and survivors insurance and unemployment compensation, establishment of a system of medical insurance, and legislation to provide housing for middle-income families.

President Truman, in recognizing that an understanding of modern labor relations is important today, also recommended the establishment of a Labor Extension Service "to encourage educational activities in this field."

In his annual Economic Report to Congress on January 6, required by the Employment Act of 1946, President Truman also stressed his belief that sound cooperation between government and the major factors of production would result in unprecedented increases in the American standard of living. "Within five years," he said, "we can achieve an annual output in excess of 300 billion dollars"—which would provide civilian employment for 64 million workers and raise average family income by $1,000. The President set the employment goal for 1950 at 61,000,000 jobs, requiring a 7-percent increase in national income over the 1949 figure. This would reduce unemployment to 2 or 2.5 million, which he considers "the minimum level consistent with labor mobility in a free economy."

The President briefly reviewed the economic situation during 1949, concluding that "despite

rough going for a few months, we made necessary changes with much less distress and difficulty than ever before" and that "today we are on firmer ground than we were a year ago."

"The relatively safe passage from inflation to greater stability was no accident," he continued. "Businessmen, workers, and farmers demonstrated much greater judgment and restraint than in earlier periods * * *. Their efforts were aided by public policies which had been developed over the years and had been improved by experience."

In highlighting last year's economic situation, the President said that total civilian employment averaged 58.7 million in 1949, compared with 59.4 million in 1948. Unemployment at its peak was 4.1 million, but had been reduced to less than 3.5 million by December.

Total production of all goods and services amounted to 259 billion dollars, which, adjusted for price changes, was 1 percent lower than in 1948. This fell short of maximum production by 4 to 5 percent or by 10 to 13 billion dollars.

A much smaller number of workers received wage increases than in previous postwar years although wages averaged slightly higher than in 1948. An outstanding development in the labor field was the increase in pension and social insurance plans financed in whole or in part by employers. Although work stoppages numbered about the same as in 1948, the loss in man-days of work was about 50 percent greater because of the large number of workers involved in the coal and steel strikes.

Consumers' disposable income was higher in 1949, rising to 192.9 billion dollars from 190.8 billion dollars in 1948. Consumer expenditures for goods and services were constant, totaling 179 billion dollars.

Construction started off slowly but exceeded the 1948 level by 3 percent in dollar volume. It played an important part in stabilizing the economy, in the President's opinion. Housing starts exceeded 1,000,000 compared with 931,000 in 1948.

In discussing price and wage policies, the President minimized the threat of inflation. He placed priority upon increased production, employment, and incomes to "complete the recovery from the 1949 downturn, and go on to the higher levels which will be made possible by a growing population and rising productivity." In noting that the present price level can provide for continued business expansion, he said that "there are few if any major areas in which price increases would be justified under present conditions."

"Wage adjustments," the President continued, "are one historic method by which buying power has increased with increasing productivity. These adjustments are now in the hands of management and labor. That is where they should remain. At the same time, the participants in collective bargaining, particularly in dominant industries, should recognize that wage adjustments affect not only the employers and workers immediately engaged, but also the whole economy."

The President called the present social-security program "grossly inadequate." He said that at the end of 1949, one-third of the unemployed and in some areas almost two-thirds, were not covered by unemployment compensation. In the case of old-age and survivors insurance, only 30 percent of those over 65 are eligible for benefits, which "are so meager that few can retire voluntarily." "Needed medical care," he pointed out, "is denied to millions of our citizens because they have no access to systematic and adequate methods of meeting the cost." The President recommended that the social-security program be expanded to provide for these inadequacies.

Injury Rates in Manufacturing: Third Quarter, 1949

WORK-INJURY RATES in manufacturing showed a slight increase in July and August 1949, but in September, returned to the low level recorded in June.

The average injury-frequency rate for all establishments reporting in the third quarter was 4 percent above that for the second quarter. This apparent seasonal rise has been observed in each of the 7 years for which monthly data have been compiled. However, in spite of the slight upturn during July and August, the average for the third quarter of 1949 was more than 17 percent below that for the same quarter in 1948; the average for the first 9 months was 18 percent lower than for the corresponding period of 1948.

It is estimated that during the third quarter of 1949 approximately 85,700 workers in manufactur-

ing establishments were disabled for one or more days because of work-connected injuries. This is an increase over the estimate of 84,000 for the second quarter of 1949, but a substantial decrease from the 109,800 for the third quarter of 1948. Over 300 of these workers died as a result of work injuries during the current period, and 4,400 others are known to have suffered some permanent physical impairment. Some of those injuries classified as temporary disabilities at the time of the report may later become more serious, requiring a slight increase in these estimates.

Working time lost during the quarter by these injured persons is estimated at about 1,714,000 man-days. At current wage levels, this represents an estimated value of about 17 million dollars—a loss paid partly by the employers in the form of workmen's compensation, and partly absorbed by the injured workers in the form of reduced income during the period of disability. This, however, is only a portion of the total cost which will accrue from these injuries. It includes no allowance for the continuing economic losses arising from the many deaths and permanent impairments, or for hospital, medical, and other costs incidental to the treatment of these injuries.

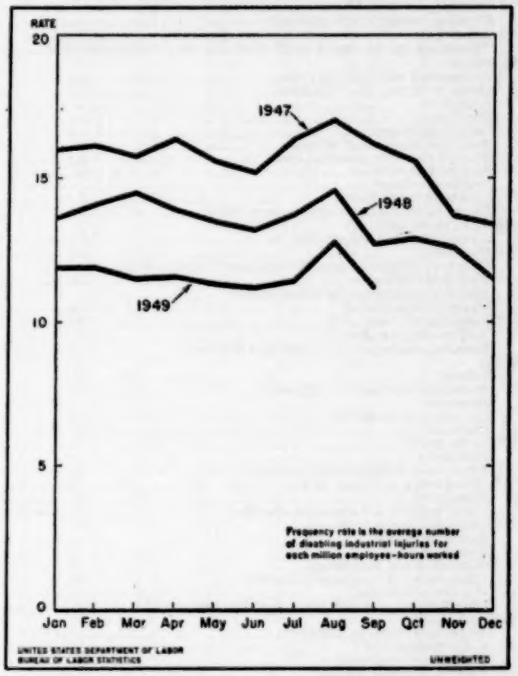
Increases in injury-frequency rates between the second and third quarter of 1949 were recorded for 44 of the 123 separate manufacturing classifications for which comparable data were available, and decreases were recorded for 41. For 38 industries, the rates varied by less than one frequency-rate point.

The most significant increases were reported in the following industries: Batteries (from 7.9 injuries per million man-hours in the second quarter to 27.4 in the third); canning and preserving (from 9.2 to 19.6); ornamental metal work (from 16.2 to 26.3); beverages, not elsewhere classified, which consists principally of the bottling and delivery of nonalcoholic beverages (from 27.3 to 37.2); heating equipment (from 17.3 to 24.4); leather tanning (from 15.5 to 21.5); apparel and accessories, not elsewhere classified (from 5.7 to 11.6); and tin cans and other tinware (from 11.5 to 16.8).

The rise in injury rates in the canning industry was associated with a sharp seasonal increase in activity. Employment rose sharply between the second and third quarters. The presence of many temporary and inexperienced workers and the pressure of peak operations undoubtedly contributed to the increase in injury rates. Likewise, the increase in injury rates in certain of the other industries, particularly beverages, may be associated with seasonal activities.

The principal decreases were in planing mills (from 39.2 to 30.9); trimmings and fabricated textile products, not elsewhere classified (from 14.4 to 7.1); general machine shops (from 23.5 to 16.2); cutlery and edge tools (from 13.4 to 7.0); sugar refining (from 28.5 to 22.7); concrete, gypsum and plaster products (from 30.4 to 24.7).

Injury-Frequency Rates in Manufacturing



The highest injury rates were found in the lumber and woodworking group of industries. Logging recorded an injury-frequency rate of 83.5; sawmills, 53.8; integrated saw and planing mills, 45.5; wooden containers, 35.4. Veneer mills showed a cumulative rate for the first 9 months of 36.5. The only other industries with rates of over 35 were beverages, not elsewhere classified, with a rate of 37.2; and boatbuilding, with a cumulative rate of 41.5.

Outstandingly low rates for the third quarter were reported by the following: Explosives (1.6); synthetic textile fibers (2.0); synthetic rubber (3.1); electric lamps and bulbs (3.1); optical and ophthalmic goods (3.3); compressed and liquefied gases (3.6); radios and phonographs (3.7); plastic materials, except rubber (3.9); communication and signaling equipment, except radio (4.1); aircraft (4.2); aircraft parts (4.2); ordnance and accessories (4.7); electrical equipment, not elsewhere classified (4.8); professional and scientific instruments and supplies (4.9).

Industrial injury-frequency rates [1] for selected manufacturing industries, third quarter 1949, with cumulative rates for 1949

Industry [2]	Third quarter, 1949					Frequency rate	
	Number of establishments	Frequency rate for—				January–September 1949 (cumulative)	1948: Annual (final) [3]
		July	August	September	Third quarter		
Apparel:							
Clothing, men's and boys'	318	5.2	7.3	6.8	6.6	6.4	7.1
Clothing, women's and children's	270	4.4	7.8	4.8	5.8	5.0	4.5
Apparel and accessories, not elsewhere classified	34	(3)	(3)	(3)	11.6	7.8	7.1
Trimmings and fabricated textile products, not elsewhere classified	82	5.0	11.5	4.7	7.1	10.7	11.0
Chemicals:							
Compressed and liquefied gases	33	(3)	(3)	(3)	3.6	6.9	9.2
Drugs, toiletries, and insecticides	63	6.8	6.3	7.5	6.9	9.4	10.7
Explosives	36	(3)	2.3	2.4	1.6	1.6	4.3
Fertilizers	71	(3)	(3)	(3)	29.2	26.1	27.3
Industrial chemicals	187	6.7	9.2	7.6	7.8	7.7	10.9
Paints, varnishes, and colors	63	7.1	8.1	6.3	7.2	7.4	15.4
Plastics materials, except rubber	27	5.2	2.5	4.2	3.9	4.2	6.4
Soap and glycerin	42	3.4	7.2	5.9	5.6	6.0	7.5
Synthetic rubber	19	(3)	(3)	(3)	3.1	2.0	1.7
Synthetic textile fibers	19	2.0	1.6	2.5	2.0	3.0	5.4
Chemical products, not elsewhere classified	61	8.0	5.7	6.7	6.8	9.8	12.3
Electrical equipment:							
Automotive electrical equipment	23	15.6	23.2	12.6	17.3	14.9	16.2
Batteries	25	22.7	34.3	24.2	27.4	14.9	20.9
Communication and signaling equipment, except radio	22	3.4	3.6	5.0	4.1	4.4	5.3
Electrical appliances	31	11.7	9.5	7.9	9.5	9.3	13.3
Electrical equipment for industrial use	229	5.5	5.6	5.5	5.5	6.1	8.1
Electric lamps (bulbs)	18	3.3	4.8	1.4	3.1	3.2	3.0
Insulated wire and cable	23	13.3	7.8	8.7	9.6	10.4	16.2
Radios and phonographs	98	3.5	4.2	3.4	3.7	4.4	5.5
Electrical equipment, not elsewhere classified	18	(3)	(3)	(3)	4.8	7.3	5.4
Food:							
Baking	54	13.9	11.5	10.8	12.1	13.9	16.3
Beverages, not elsewhere classified	80	36.6	39.3	35.5	37.2	30.6	28.4
Breweries	25	21.2	28.5	25.7	25.2	26.2	35.5
Canning and preserving	55	11.6	23.2	20.5	19.6	14.1	21.1
Confectionery	28	9.2	11.8	6.3	8.9	10.0	16.7
Dairy products	122	23.7	24.1	16.1	21.5	20.8	21.6
Distilleries	56	6.2	10.1	7.7	8.0	7.3	9.2
Flour, feed, and grain-mill products	101	8.1	12.4	10.1	10.2	11.5	21.6
Slaughtering and meat packing	299	17.5	16.7	16.8	17.3	16.3	24.6
Sugar refining	15	21.7	23.1	23.1	22.7	25.3	29.7
Food products, not elsewhere classified	51	8.9	12.2	11.3	10.9	11.2	20.0
Furniture and lumber products:							
Furniture, metal	22	10.6	21.3	18.4	17.4	16.2	17.4
Furniture, wood	78	24.6	21.8	17.8	21.1	22.1	23.8
Mattresses and bedsprings	94	12.1	15.7	19.4	16.0	16.0	23.1
Office, store, and restaurant fixtures	41	(3)	(3)	(3)	21.4	21.1	15.3
Wooden containers	182	32.8	38.0	35.3	35.4	35.7	42.6
Miscellaneous wood products, not elsewhere classified	108	21.5	23.5	17.2	20.8	24.0	30.9
Iron and steel:							
Bolts, nuts, washers, and rivets	41	20.2	15.0	15.7	16.7	15.5	15.3
Cold-finished steel	33	19.2	16.6	11.5	15.5	16.5	18.4
Cutlery and edge tools	24	4.6	11.6	4.9	7.0	12.2	20.3
Fabricated structural steel	179	19.7	22.4	20.5	21.0	18.5	26.0
Forgings, iron and steel	98	14.5	19.0	17.4	17.1	16.2	24.0
Foundries, iron	324	30.5	28.2	24.8	27.7	29.2	39.7
Foundries, steel	96	23.0	21.8	24.1	22.9	23.9	30.5
Hardware	45	12.9	12.1	15.1	13.4	12.7	13.1
Heating equipment, not elsewhere classified	67	24.7	27.7	21.2	24.4	20.0	27.2
Iron and steel	120	7.1	7.0	7.2	7.1	6.5	7.4
Metal coating and engraving	49	15.5	21.8	21.8	20.1	20.4	28.3
Ornamental metal work	42	33.8	30.8	15.8	26.3	21.3	20.6
Plate fabrication and boiler-shop products	110	23.0	25.5	18.6	22.4	21.8	33.4
Plumbers' supplies	42	14.2	18.2	15.7	16.1	14.7	18.8
Screw-machine products	82	8.1	16.8	10.7	12.2	13.8	16.2
Sheet-metal work	68	19.3	20.4	21.6	20.5	20.6	25.3
Stamped and pressed metal products, not elsewhere classified	188	13.0	14.4	15.2	14.3	15.6	21.6
Steam fittings and apparatus	45	16.5	19.0	15.7	17.1	15.3	22.4
Steel barrels, kegs, drums, and packages	16	(3)	(3)	(3)	(3)	9.1	15.5
Steel springs	15	15.8	11.9	9.5	12.3	13.6	20.8
Tin cans and other tinware	14	19.2	14.6	16.9	16.8	11.4	14.7
Tools, except edge tools	50	12.1	20.4	11.3	14.5	15.6	19.3
Wire and wire products	131	18.7	17.9	13.7	16.6	16.6	20.4
Wrought pipes, welded and heavy-riveted	16	22.2	14.7	15.0	17.0	17.4	18.6
Iron and steel products, not elsewhere classified	24	(3)	(3)	(3)	(3)	17.7	24.6

Industrial injury-frequency rates[1] for selected manufacturing industries, third quarter 1949, with cumulative rates for 1949—Con.

Industry[2]	Third quarter, 1949					Frequency rate	
	Number of establishments	Frequency rate for—				January–September 1949 (cumulative)	1948: Annual (final)[3]
		July	August	September	Third quarter		
Leather:							
Boots and shoes, not rubber	234	9.7	8.7	9.2	9.2	8.6	8.4
Leather	32	15.6	24.9	23.5	21.5	19.4	27.4
Leather products, not elsewhere classified	25	(4)	(4)	(4)	(4)	5.3	10.3
Lumber:							
Logging	73	80.9	76.2	93.0	83.5	86.1	91.8
Millwork, structural	203	26.4	24.6	19.5	23.3	24.0	29.1
Planing mills	55	(4)	(4)	(4)	30.9	35.1	40.7
Plywood mills	48	35.2	33.9	29.5	32.6	30.1	35.5
Sawmills	70	52.6	62.5	45.6	53.8	54.7	57.8
Saw and planing mills, integrated	81	48.1	42.9	46.0	45.5	44.2	53.0
Veneer mills	31	(4)	(4)	(4)	(4)	36.5	36.2
Machinery, except electric:							
Agricultural machinery and tractors	79	12.5	14.7	14.3	13.8	15.9	21.9
Bearings, ball and roller	33	14.7	16.0	10.5	13.7	12.1	14.4
Commercial and household machinery	105	5.8	9.1	5.9	6.9	7.5	9.5
Construction and mining machinery	118	13.1	16.0	14.7	14.6	17.0	24.6
Elevators, escalators, and conveyors	22	9.7	12.6	14.6	12.4	15.6	21.2
Engines and turbines	44	8.4	11.7	10.9	10.4	10.7	10.7
Food-products machinery	53	16.5	11.2	8.3	11.7	13.7	19.8
General industrial machinery and equipment, not elsewhere classified	175	12.9	16.5	14.3	14.6	14.7	19.3
General machine shops (jobbing and repair)	106	15.6	14.6	18.4	16.2	21.3	22.2
Mechanical measuring and controlling instruments	56	8.6	10.9	6.9	8.8	9.8	12.7
Mechanical power-transmission equipment, except ball and roller bearings	64	11.9	17.8	16.1	15.4	18.6	19.2
Metalworking machinery	398	9.2	11.3	10.4	10.4	11.9	14.1
Pumps and compressors	74	12.4	16.7	14.9	14.8	15.4	17.8
Special-industry machinery, not elsewhere classified	121	18.4	17.7	14.1	16.7	18.3	20.2
Textile machinery	26	15.5	9.3	6.7	9.8	10.5	20.9
Nonferrous metals:							
Aluminum and magnesium products	17	(4)	(4)	(4)	19.8	17.3	15.6
Foundries, nonferrous	204	16.1	24.4	24.9	22.2	21.2	25.0
Nonferrous basic shapes and forms	27	9.9	12.2	9.8	10.7	11.3	13.8
Watches, clocks, jewelry, and silverware	35	4.1	6.4	7.3	6.2	7.1	7.2
Nonferrous metal products, not elsewhere classified	81	15.4	15.0	11.8	13.9	14.3	13.5
Ordnance:							
Ordnance and accessories	13	4.9	5.2	4.0	4.7	5.7	5.1
Paper:							
Paper boxes and containers	263	15.0	17.3	17.0	16.6	15.5	19.7
Paper and pulp	357	17.1	17.0	14.1	16.0	16.4	20.5
Paper products, not elsewhere classified	35	9.8	13.5	11.2	11.6	12.5	17.6
Printing and publishing:							
Book and job printing	110	9.5	13.5	8.8	10.6	9.4	8.8
Bookbinding	22	(4)	(4)	(4)	(4)	14.3	13.3
News and periodicals	35	8.5	5.9	10.5	8.3	10.2	8.9
Rubber:							
Rubber boots and shoes	12	5.2	6.1	5.1	5.5	4.7	6.3
Rubber tires and tubes	32	4.6	5.4	5.2	5.1	5.7	7.7
Rubber products, not elsewhere classified	80	12.5	16.5	14.7	14.7	13.8	16.1
Stone, clay, and glass:							
Clay products, structural	135	32.7	32.3	37.1	34.0	32.2	37.9
Concrete, gypsum, and plaster products	120	(4)	(4)	(4)	24.7	27.1	28.7
Glass	43	14.0	10.1	10.4	11.4	12.3	15.0
Pottery and related products	30	13.7	13.1	14.5	13.8	16.0	18.0
Stone, clay, and glass products, not elsewhere classified	42	8.2	21.2	15.7	15.6	14.2	20.6
Textiles:							
Cotton yarn and textiles	167	8.8	8.9	7.4	8.3	8.3	10.8
Dyeing and finishing textiles	50	11.6	13.0	13.1	12.6	11.4	16.5
Knit goods	68	5.7	5.1	5.1	5.2	5.9	7.1
Rayon, other synthetic, and silk textiles	57	5.8	6.4	7.2	6.5	6.7	9.2
Woolen and worsted textiles	138	13.9	13.1	12.4	13.1	11.6	14.8
Miscellaneous textile goods, not elsewhere classified	29	18.2	11.4	24.5	18.3	16.9	22.3
Transportation equipment:							
Aircraft	14	3.6	4.0	4.9	4.2	4.5	4.9
Aircraft parts	30	4.6	4.7	3.3	4.2	5.6	10.2
Boatbuilding	43	(4)	(4)	(4)	(4)	41.5	48.2
Motor vehicles	96	6.6	8.8	6.8	7.3	7.2	7.3
Motor-vehicle parts	95	17.7	17.9	13.2	16.2	15.1	13.2
Railroad equipment	48	14.9	13.8	14.5	14.4	15.7	18.1
Shipbuilding and repairs	54	24.0	23.2	25.2	24.1	23.3	26.8
Miscellaneous manufacturing:							
Fabricated plastics products	31	3.3	8.8	7.5	6.7	10.0	14.5
Optical and ophthalmic goods	16	1.8	2.4	5.2	3.3	3.3	6.0
Photographic apparatus and materials	24	6.4	5.1	3.9	5.1	5.0	5.9
Professional and scientific instruments and supplies	57	3.7	6.9	4.1	4.9	5.2	15.3
Miscellaneous manufacturing, not elsewhere classified	137	8.2	10.0	9.4	9.3	9.9	13.7

[1] The average number of disabling industrial injuries for each million employee-hours worked.

[2] Annual rates are based on substantially larger coverage than that of the quarterly survey and are, therefore, not strictly comparable with the monthly and quarterly rates.

[3] Insufficient data.

[4] Based on incomplete data; several important reports delayed due to labor dispute.

Employment Outlook for Elementary and High-School Teachers [1]

SHORTAGES OF TEACHERS in elementary and secondary schools have been widely publicized over the last few years. Elementary teachers are still in short supply in practically every State; but the situation in high schools (or secondary schools) improved greatly by September 1949. Most States now have an oversupply of secondary school teachers in all but a few special subject fields.

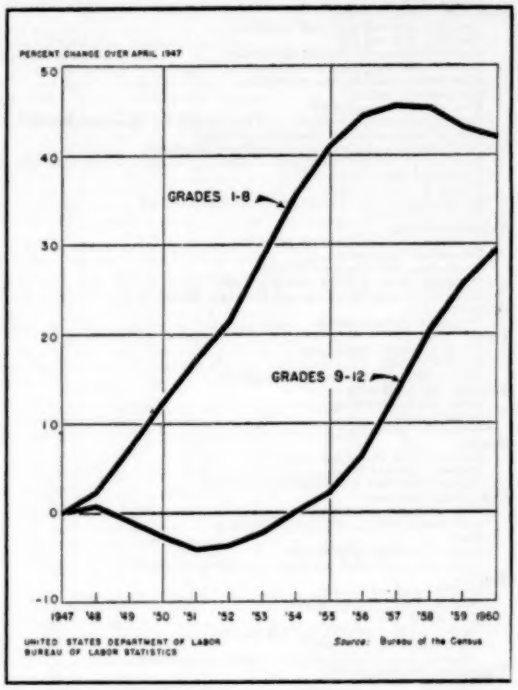
A State-by-State study of the outlook for teachers, recently completed by the Bureau of Labor Statistics, shows that this imbalance in teacher supply is likely to continue unless there is a great increase in the number of teachers being trained for elementary work and a reduction in the number preparing for high-school teaching. The demand for new teachers for grades 1 to 8 will continue to increase for the next 4 or 5 years and will remain high for the rest of the 1950 decade. New high-school teachers will be needed chiefly as replacements for those leaving the profession during the next few years. About 1952 the total number of teachers required for grades 9 to 12 will begin an upward trend lasting until 1961 or 1962.[2]

Trends in Number of Teaching Positions

The number of teaching positions required depends, first of all, on enrollments. In the Nation as a whole, enrollments in grades 1 to 8 are expected to rise sharply during the next 7 years and decline gradually for the following 3 years (chart 1). Assuming that 1947 was the peak year for births, total enrollments in these grades will be greatest about 1957. For most States the general pattern of anticipated enrollments follows that for the Nation.

Assuming a ratio of 30 pupils for each teacher (the highest ratio regarded as generally acceptable by educational authorities), the total number of elementary positions may increase by more than 260,000 by 1957.[3] The number of new teachers required annually will be greatest—probably over 40,000—about 1953, the year when the sharpest increase in enrollments is expected. Whether new teachers will actually be added at this rate will depend on many factors, notably the availability of personnel and of the necessary classroom space.

Chart 1. Forecasts of School Enrollment



Enrollments in grades 9 to 12 (chart 1) are expected to decline until about 1952 in all States except those which have experienced a large amount of in-migration. After 1952 enrollments will probably rise slowly for the following 3 years and then increase rapidly to 1961 or 1962. It is probable that the needs for secondary teachers

[1] By Cora E. Taylor of the Bureau's Occupational Outlook Branch.

[2] This article is based on a report prepared by the Bureau of Labor Statistics in cooperation with the Veterans' Administration and in consultation with the State departments of education, teachers' associations, the U. S. Office of Education, and many other organizations and individuals in the field of education. The complete report, Employment Outlook for Elementary and Secondary School Teachers, Bulletin 972, is available from the Superintendent of Documents, Washington 25, D. C., (price 35 cents).

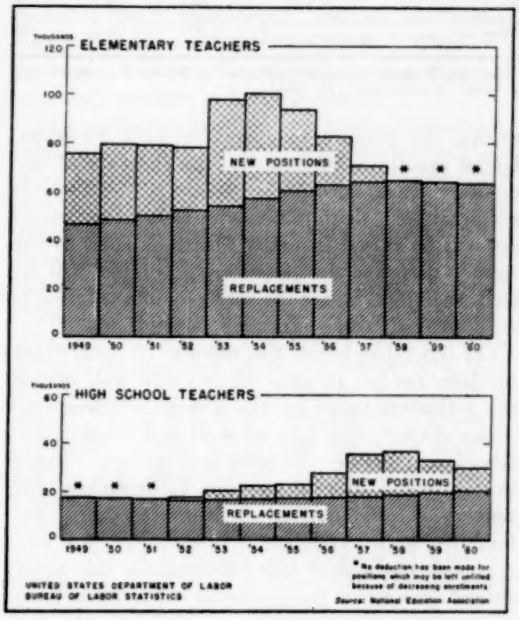
[3] National Education Association: Probable Demand for Teachers in the United States for the Decade 1949-50 Through 1958-59; 29 pp. (mimeographed)

will be limited largely to replacements for the next few years in the great majority of States. From 1952 to 1960 close to 85,000 new teachers will probably be needed to handle increased enrollments (assuming a ratio of 25 pupils per teacher).

Teacher Replacement

In the teaching profession many more new entrants are required each year for replacements than for new positions, even in a period of rapid growth of school population (see chart 2). This is true in most States, despite great variation in the drop-out rate. The percent of 1947–48 elementary teachers not in service in the same State in 1948–49 ranged from 3 percent to 18 percent in the 19 States for which information was available.[4]

Chart 2. Estimated Demand for Teachers (New Positions and Replacements)



Salaries and working conditions undoubtedly affect the turn-over rate in the teaching field; the amount of educational preparation required for teaching in the given State also greatly influences this rate. In general, persons who have invested 4 full years in teacher-training are likely to regard the profession as a career and to have a much lower drop-out rate than those with little or no special training. North Carolina, for example, requires 4 years of preparation at the elementary level, whereas Kansas requires only 60 semester hours for a regular elementary certificate and 24 semester hours for a provisional certificate. In 1948, the replacement rate among elementary teachers in Kansas was nearly double that in North Carolina.

For the immediate future, many States are faced with a teacher-replacement problem in addition to the normal withdrawal of those leaving the profession or transferring to another State: the replacement of many teachers who now hold emergency certificates. These certificates, issued to persons who do not meet regular certification requirements, represent a variety of credentials. They may be issued to applicants with no college training or to those with degrees who may lack the specific credits necessary to teach certain subjects. Furthermore, many of these teachers will qualify for regular certificates through additional study. Only very rough estimates can be made of the numbers of such teachers who will need to be replaced.

Outlook for Elementary Teachers

Teacher-training institutions produced only one elementary teacher for every three who were needed in 1949 (chart 3). During the next 4 or 5 years, the shortage of teachers in many States may become even more acute.

Most States will have to increase the number of elementary teachers trained, above the current levels, if needs are to be met in the peak years of hiring. Of course, many States—especially those where salaries and teaching conditions are relatively good—draw teachers from other States, and this increases the training problem in the less fortunate areas. Figures in table 1 give some indication of the need to raise the number of teachers being trained. The year 1953–54 is selected as the time when the greatest number of new teachers will have to be recruited in most States. The numbers of replacements included in the estimated need for teachers were calculated

[4] National Education Association: Teacher Supply and Demand in the United States, by Ray C. Maul. Washington, D. C., 1949.

according to rates furnished by the States, or at the conservative rates estimated by the National Education Association for the country as a whole—7 percent for elementary teachers and 5 percent for secondary teachers.

What are the chances of meeting the future teacher demand? Other employment opportunities available and the relative salaries offered will be chief among the many factors affecting the supply of new teachers. Teachers' salaries have recently had an upward trend. Average salaries of all instructional staff members in public schools

Chart 3. Teacher Supply and Demand

IN 1949 FEW TEACHERS COMPLETED TRAINING FOR ELEMENTARY TEACHING WHERE THE NEED WAS GREATEST
ELEMENTARY
SUPPLY
DEMAND
1 was trained for every 3 who were needed
HIGH SCHOOL
SUPPLY
DEMAND
4 were trained for every 1 who was needed
UNITED STATES DEPARTMENT OF LABOR BUREAU OF LABOR STATISTICS
SOURCE: NATIONAL EDUCATION ASSOCIATION

in the current year are estimated to be more than twice as high as in 1939–40. However, classroom teachers in elementary schools of only 13 States average $3,000 or more.[5] "Single-salary schedules," providing the same pay for elementary as for secondary teachers with equivalent education and experience, are being established in more and more communities. This development should help to attract more prospective teachers into the elementary field. If general economic conditions should become less favorable and considerable unemployment should develop, more young people would enter teacher-training and some former teachers would return to the profession. Because of its relative stability and because salaries usually decrease less rapidly in the teaching field than in many others, the profession is considered more desirable in periods of economic depression than in boom periods. The present oversupply of teachers trained for high-school teaching may also result in many transfers to elementary teaching. A number of States have already established special courses to prepare teachers for such transfers. Under certain circumstances, the shortage of elementary teachers could be greatly reduced within a short time. Requirements for elementary teachers will be raised in many States as soon as the supply permits; the prospective teacher will do well, therefore, to get the best possible training in an approved teacher-training institution.

TABLE 1.—*Number of elementary teachers trained in 1949, compared with estimated peak need*

Selected States	Estimated number of new teachers needed in 1953–54	Elementary teachers trained in 1949 [1]	
		Number	Percent of number needed in 1953
United States: Total	100,000	25,000	25
Ohio	5,000	939	19
West Virginia	1,450	336	23
Florida	2,175	564	26
Michigan	4,300	1,189	28
Kentucky	1,925	591	31
Idaho	425	150	35
Vermont	275	108	39
Arizona	475	221	46
Iowa	1,800	854	47
Colorado	825	415	50
Wisconsin	1,875	1,214	65

[1] National Education Association: Teacher Supply and Demand, by Ray C. Maul. Washington, D. C., 1949.

On the other hand, the number of elementary teachers needed in each State could well exceed the estimates made by the Bureau. These estimates do not take into account any extension of school services to the preschool group. Many States would like to provide kindergarten and nursery school training if funds, teachers, and facilities were available. Furthermore, the estimates do not include any provision for the reduction of class size in many schools where the average is over 30 pupils per teacher. The over-all average for the elementary schools of the country is slightly under 30 to 1, but the distribution of the school-age population is such that it is impossible to shift pupils from overcrowded schools to those with under-average enrollments (usually rural schools). Many school authorities recommend a ratio of not more than 25 pupils per teacher. Re-

[5] National Education Association: Advance Estimates of Public Elementary and Secondary Schools for the School Year 1949–50, 16 pp. (mimeographed).

duction of average class size to 25 to 1 would require an additional 142,000 teachers by the end of the decade.[6]

Outlook for High-School Teachers

Students completing training for high-school teaching in 1949 were estimated to be four times the number needed (chart 3). However, the distribution both by locality and by subject field is such that some schools suffer shortages while others have many applicants for each job. With few exceptions, shortages are limited to rural areas and such special subject fields as home economics, commercial work, and industrial arts. The greatest oversupply in most States is in men's physical education, the social sciences, and English.

The proportion of teacher trainees preparing for high-school positions will probably tend to decrease as the practice of equal pay for equal preparation and experience, regardless of position, becomes more widespread, and as elementary teachers receive greater recognition. Thus, the imbalance between the supply of elementary and secondary teachers may be reduced.

Several factors may tend to increase high-school enrollments and teachers required beyond the estimates made by the Bureau for each State. Past trends show a tendency toward a rising standard of education in the United States. The proportion of young people attending high school increased from 32 per 100 population 14 to 17 years of age in 1920, to 51 in 1930, and 73 in 1940. A further increase is anticipated as educational facilities are extended and as high-school education is required for entry into a greater proportion of jobs. In estimating future enrollments, allowance was made for this trend, but the gains may be greater than anticipated. In addition, greatly increased Federal or State aid to education might expand high-school enrollments considerably. The desirability of enriching the curriculum and reducing the pupil-teacher ratio may also tend to increase the numbers of teachers needed.

In any case, it appears that the current rate of training would produce an oversupply of high-school teachers in most States even during the years of greatest need. Table 2 compares the number of high-school teachers trained in 1949, with the estimated needs in 1957–58, the peak year of hiring in most States. It is recognized, of course, that all students qualifying for certificates do not seek teaching positions, nor do all teachers trained in one State remain to teach in that State.

TABLE 2.—*Number of high-school teachers trained in 1949, compared with estimated peak need*

Selected States	Estimated number of new teachers needed in 1957–58	High-school teachers trained in 1949 [1]	
		Number	Percent of number needed in 1957
United States: Total	36,800	56,000	152
Wyoming	100	97	97
New Hampshire	230	238	103
Missouri	1,000	1,165	117
Oregon	465	568	122
Alabama	1,050	1,336	127
Utah	400	552	138
Minnesota	1,300	2,012	155
Illinois	2,000	3,479	174
Nebraska	450	805	179
Arkansas	525	1,068	203
North Dakota	150	395	263

[1] National Education Association: Teacher Supply and Demand, by Ray C. Maul. Washington, D. C., 1949.

Salaries and Working Conditions of Dietitians, 1949 [1]

A QUESTIONNAIRE SURVEY made in May 1949 indicates that hospital dietitians received annual salaries averaging $2,820 and that those living outside hospital quarters averaged $2,970. The Bureau of Labor Statistics conducted the study in cooperation with the American Dietetic Association. Half the hospital dietitians earned between $2,400 and $3,200; 1 out of 12 reported salaries of less than $2,000 and less than 1 in 20 received $5,000 or more (table 1). In all regions except New England and the Southeast, the average salary of hospital dietitians was between $2,750 and $3,000 a year. In New England, the average was $2,520 and in the Southeast it was $2,600. Highest salaries, averaging $2,950 to $3,000, were reported in the Mountain, Southwest, and Pacific States.

Dietitians are employed in a variety of fields. The most important is hospital work in which

[6] National Education Association, op. cit.

[1] By Lily Mary David of the Bureau's Division of Wage Statistics.

they plan diets and menus and also administer the hospital's food service. Health and welfare agencies also employ them as nutritionists to teach nutrition principles. They are engaged in research, teaching dietetics, and in menu planning and food service management in schools and colleges, in industrial cafeterias, and in hotels and restaurants. They work as food editors for magazines and newspapers and as industrial consultants for utility companies and firms in the food or kitchen-equipment industries.

The survey covered not only hospital dietitians but those in other branches of dietetics who were members of the American Dietetic Association.[2] Since it was impossible to reach those in other fields of the profession who were outside the association, the data on these branches must be used with caution. It is probable that inclusion of nonmembers would lower the average salaries reported, at least for food service dietitians.[3] Among the other groups for which sufficient data were collected to warrant discussion, lowest salaries were reported for college food-service dietitians who averaged about $3,000 a year. Food editors and industrial consultants apparently received the highest earnings of any dietitians, but the number of replies from women in these two fields does not warrant presentation of average salaries for them. Industrial food-service dietitians ranked next highest with an average salary of $3,800.

Salaries tended to increase with length of service with the dietitian's present employer as well as with total years of experience in the profession. There was apparently little variation in salary levels of hospital dietitians with size of community, but salaries tended to be higher in large than in small hospitals. General hospitals, in which the great majority of hospital dietitians

TABLE 1.—*Distribution of hospital dietitians, by annual salaries and by region, 1949* [1]

Annual salaries	Percent of dietitians in—									
	United States	New England	Middle Atlantic	Border States	Southeast	Great Lakes	Middle West	Southwest	Mountain	Pacific
Under $1,000	(3)		(3)							1
$1,000 and under $1,200	(3)				2			1		
$1,200 and under $1,400	1	1	(3)	2	2			2		
$1,400 and under $1,600	1	2	1		1	(3)				
$1,600 and under $1,800	2	6	1	1	4	1		1	2	
$1,800 and under $2,000	4	6	4	6	12	2	3	3	6	(3)
$2,000 and under $2,200	7	13	11	8	9	4	6	5	4	1
$2,200 and under $2,400	6	8	8	6	7	5	10	1	6	2
$2,400 and under $2,600	16	17	15	13	12	17	17	20	18	12
$2,600 and under $2,800	12	16	10	12	6	16	13	9	2	14
$2,800 and under $3,000	11	4	10	11	12	13	13	7	16	16
$3,000 and under $3,200	12	8	12	8	10	15	13	13	9	20
$3,200 and under $3,400	6	4	4	6	7	6	7	5	13	8
$3,400 and under $3,600	2	(3)	2	2	(3)	2	1	2	1	4
$3,600 and under $3,800	6	2	7	8	5	7	3	9	3	6
$3,800 and under $4,000	4	2	4	3	1	3	7	8	7	4
$4,000 and under $4,200	2	2	2	3	2	2	2	1	3	2
$4,200 and under $4,400	1	2	2			1	(3)	(3)	2	2
$4,400 and under $4,600	1	1	2	1	1	1	1	3		2
$4,600 and under $4,800	1		1	3	2	1	1		5	3
$4,800 and under $5,000	1	2	1	1	1	1	(3)	3	2	1
$5,000 and under $5,200	(3)		1	(3)		(3)				(3)
$5,200 and under $5,400	2	2	1	4	2	1	3	4	1	1
$5,400 and under $5,600	1	1		1		(3)		3		1
$5,600 and under $5,800	(3)	(3)		(3)	1	1		(3)		
$5,800 and under $6,000	(3)					(3)				
$6,000 and over	1	1	1	1	1	1	(3)			(3)
Total	100	100	100	100	100	100	100	100	100	100
Average annual salary [2]	$2,820	$2,520	$2,760	$2,820	$2,600	$2,880	$2,820	$3,000	$2,950	$3,000

[1] Annual salaries reported in May 1949. Salaries do not include cash equivalent of any maintenance provided by employer.

[2] Median.

[3] Less than 0.5 of 1 percent.

The regions used in this study were: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Mountain*—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; *Pacific*—California, Nevada, Oregon, and Washington.

[2] Information was obtained by means of mail questionnaire filled in by members of the profession. Altogether about 2,100 hospital dietitians and 1,200 other active and inactive dietitians participated in the study. It is estimated that these participants account for about a third of all hospital dietitians and between a third and a fourth of the members of the American Dietetic Association outside the hospital field.

[3] The association requirements for membership include a bachelor's degree with certain courses in nutrition and dietetics or related fields, plus either a year's dietetic internship or 3 years' experience for which certain standards are set.

are employed, showed an average of $2,760 annually. Highest salaries were reported for mental hospitals, where the average dietitian earned $3,330 a year.

Practically all participants in the survey reported some professional education in dietetics or related fields, and at least 9 out of 10 reported that they had either a bachelor's degree in dietetics, home economics, or related fields, or some graduate work. Salaries were found to increase with amount of education in the field, from $1,860 for those without any college education in the profession to $3,100 for those with some graduate work in this field.

About one hospital dietitian in four lived in hospital quarters, receiving room and usually board in addition to her salary. Cash salaries for those living outside hospital quarters were almost $600 higher than for those occupying hospital quarters (table 2). Part of the regional differences in salaries is explained by differences in the extent to which dietitians lived in hospital quarters. Arrangements for living in were most common in New England and the Southeast where cash salaries were lowest; they were least common in the regions with the highest cash salaries. However, separate data for those living in and those living out still leave the New England States lowest in the salary scale; the Southwest and Pacific States were generally high in the scale. Salaries in the Southeast also ranked low among dietitians living in the hospital, but this region stood relatively high in terms of salaries for those occupying their own living quarters.

Meals, in addition to cash salaries, were provided more than one-half the hospital dietitians and almost all college food-service dietitians. In most cases, 21 meals were provided weekly. Meals were added to salaries most frequently in the Great Lakes, Mountain, and Pacific States.

On the basis of returns for 1 month in the spring of 1949, it appears that relatively few dietitians received any income from dietetic work beyond their regular salaries and room and board. About 1 in 10 hospital dietitians and nutritionists received some additional income (for example, for overtime or holiday work). Among nutritionists receiving this additional income, the amount varied from $15 to $50 a month, and among hospital dietitians, from $1 to about $25.

Hours of work of dietitians appeared to be relatively long compared with those of wage earners and of many other white-collar groups in 1949. Hospital dietitians averaged about 44 hours a week. Nutritionists typically worked

TABLE 2.—*Average [1] annual salaries of hospital dietitians, by region and living arrangements, 1949 [2]*

Region	Living in hospitals		Living outside hospitals	
	Number [3]	Average [1] annual salary	Number [3]	Average [1] annual salary
United States	1,659	$2,400	4,414	$2,970
New England	202	2,250	284	2,650
Middle Atlantic	537	2,500	923	2,810
Border States	171	2,400	279	3,270
Southeast	253	2,280	383	2,970
Great Lakes	264	2,700	1,042	2,940
Middle West	93	2,580	314	2,940
Southwest	75	2,700	380	3,000
Mountain	32	2,400	210	3,600
Pacific	32	2,700	599	3,000

[1] Median.
[2] Annual salaries reported in May 1949. Salaries do not include cash equivalent of any maintenance provided by employer.
[3] Refers to estimated total, not actual number of replies.

TABLE 3.—*Distribution of hospital dietitians, by usual scheduled weekly hours [1] and by region, 1949*

Scheduled weekly hours [1]	Percent of hospital dietitians in—									
	United States	New England	Middle Atlantic	Border States	Southeast	Great Lakes	Middle West	Southwest	Mountain	Pacific
40 hours	34	23	24	36	31	33	29	38	43	77
42 hours	4	4	4	3	8	1	7	3	1	2
44 hours	29	32	39	18	16	41	37	23	30	13
45 hours	6	4	8	7	4	4	3	9	8	2
48 hours	14	20	13	19	15	13	16	17	12	3
50 hours	4	4	4	7	9	2	2	4	1	1
54 hours	3	5	3	5	5	2	4	2	1	[2]
55 hours	1	1	1	2	3	1	1		1	
60 hours	2	5	1	1	6	[2]		1	1	
Other	3	2	3	2	3	3	1	3	2	2
Total	100	100	100	100	100	100	100	100	100	100

[1] Excluding meal periods.
[2] Less than 0.5 of 1 percent.

shorter hours, averaging 40 a week, whereas college food-service dietitians reported that they worked about 49 hours weekly on the average. Two-thirds of the hospital dietitians reported that their work schedule exceeded 40 hours, as did 9 out of 10 college food-service dietitians. About 1 out of 3 hospital dietitians was on a 44-hour schedule; 48 hours was the most common single schedule for college food-service dietitians.

Among those working in hospitals, the longest hours scheduled were reported in New England (table 3), and the longest actually worked were reported in New England, the Border States, and the Southeast; in these 3 regions, hours on duty averaged about 44 weekly. The shortest workweek was found on the Pacific Coast—42 hours.

Split shifts, divided by more than an hour off, were reported by half of the hospital dietitians and by almost three-fifths of the college food-service dietitians, but were unusual for nutritionists. Most dietitians worked divided shifts only on some workdays in the week. In New England, where split shifts were most common, over a third of those required to work such a divided schedule were on this schedule all workdays in the week.

Supplementary Benefits

Annual paid vacations of at least 2 weeks were required by practically all dietitians participating in the survey. Almost half of the hospital dietitians, two-fifths of the nutritionists, three-fifths of the college food-service dietitians, and half of the college teachers received vacations of at least 4 weeks each year (table 4).

Sick-leave plans were also widespread, although for hospital dietitians and college teachers they were less universal than vacation plans. In most cases sick leave was limited to no more than 2 workweeks annually.

Provisions for retirement pensions varied from field to field. Whereas two-thirds of the nutritionists and college teachers worked where there were pension plans contributed to at least in part by the employer, half of the college food-service dietitians and somewhat less than a third of the hospital dietitians were covered by such pension arrangements.

Life-insurance plans contributed to by employers were reported more often by the nutritionists, college food-service dietitians, and college teachers participating in the survey than by hospital dietitians. Hospitalization and provisions for medical care were more common for hospital dietitians. Almost half of the hospital dietitians were provided with hospitalization and medical care. These provisions were most common in the New England and Middle Atlantic States and least common in the Midwest, Mountain, and Pacific regions.

TABLE 4.—*Annual paid vacations of dietitians, in selected fields of specialization, 1949*

Amount of paid vacation provided annually	Percent of—			
	Hospital or clinic dietitians	Nutritionists	College food-service dietitians	College teachers
Employees receiving some vacation	100	100	98	96
1 workweek	2	1	----	4
2 workweeks	33	25	17	10
3 workweeks	13	20	13	17
4 workweeks or 1 month	28	27	44	43
Over 1 month	18	8	14	6
Other amount	6	19	10	16
Employees receiving no vacation	(1)	----	2	4
Total	100	100	100	100

[1] Less than 0.5 of 1 percent.

Opinions

Participants in the survey were asked to indicate whether they were satisfied or dissatisfied with certain aspects of their economic status and working conditions. The replies to this question indicate that the leading sources of dissatisfaction in most fields of dietetics were economic, involving provisions for retirement, security against unemployment, salaries, and opportunities for promotion. Work equipment was also a source of complaint among a relatively large number of dietitians. When data were tabulated on a regional basis, there did not appear to be any relation between salary levels of hospital dietitians and the extent of satisfaction with salaries. However, there was somewhat less dissatisfaction regarding hours of work in those regions in which the workweek was shortest.

Characteristics of Inactive Dietitians

The survey of the economic status of dietitians was prompted, in part, by the shortage of dieti-

tians that has been experienced in recent years. For this reason, those dietitians who had left their profession but had remained members of the American Dietetic Association were included and asked to indicate their reason for leaving the field. Four out of five of these inactive dietitians were married and were not working outside their homes. Their major reason for leaving the profession was to care for their homes and families. Some of these women stated that it did not pay to work and hire someone to care for their families.

TABLE 5.—*Distribution of dietitians by total dietetic experience in selected fields, 1949*

Total experience	Percent of active dietitians			
	Hospital or clinic dietitians	Nutritionists	College food-service dietitians	College teachers
Less than 1 year	9	2	9	5
1–2 years	19	3	9	6
3–4 years	18	2	14	8
5–9 years	24	23	28	24
10–14 years	12	33	13	17
15–19 years	8	13	14	6
20 years or more	10	24	13	34
Total	100	100	100	100
Average experience,[1] all dietitians	6	13	8	12

Total experience	Percent of inactive dietitians			
	All [2]	Employed outside dietetics	Not employed	
			All [2]	Housewives
Less than 1 year	10	14	9	10
1–2 years	21	21	21	23
3–4 years	27	21	28	28
5–9 years	26	24	26	25
10–14 years	9	9	9	10
15–19 years	3	5	3	2
20 years or more	4	6	4	2
Total	100	100	100	100
Average experience,[1] all dietitians	4	4	4	4

[1] Median.
[2] Includes data for categories not shown separately.

The work experience of these inactive dietitians in their field averaged only 4 years beyond college and time spent as a dietetic intern. Replies for those still active in dietetics also showed a relatively low average stay in the profession, particularly for hospital dietitians. Half of the hospital dietitians reported 6 years or less of experience in their profession (table 5).

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Women's Coats and Suits: Earnings in September 1949 [1]

AVERAGE EARNINGS of workers engaged in manufacturing women's coats and suits [2] amounted to more than $1.50 an hour [3] in 11 of 12 leading garment centers, in September 1949. Hourly earnings, on the average, ranged from $1.17 in Kansas City to $2.60 in Los Angeles. New York and Chicago, with averages of $2.27 and $2.05, respectively, were the only cities beside Los Angeles in which average earnings exceeded $2.00 an hour.

Men workers, who constituted almost half of the labor force, earned considerably more than women workers. In 11 cities, the differences between the two groups ranged from 52 cents in Baltimore to $1.45 in Los Angeles. In Kansas City, which had the smallest proportion of men workers (15 percent), they earned, on the average, 22 cents an hour more than women. Men's earnings averaged at least $2.00 an hour in 9 of the 12 cities studied; average earnings of women were $1.50 or more in 7 cities, but in no city exceeded $1.95 an hour.

Sewing-machine operators classified in two major groups—section system and single-hand (tailor) system—accounted for almost 40 percent of the total plant employment in the cities studied. Under the section system, an operator usually specializes in a limited number of operations, and under the single-hand system he performs all standard sewing-machine operations, either alone or paired with another worker in a team. Earnings of the single-hand (tailor) system operators, found in all cities except Kansas City, averaged under $2.00 an hour in Paterson, N. J., and Newark-Jersey City ($1.67 and $1.99

[1] By Charles Rubenstein of the Bureau's Division of Wage Statistics. Data were collected by field representatives under the direction of the Bureau's regional wage analysts. More detailed information on wages and related practices for each of the cities studied is available on request.

[2] The industry as defined for this study includes regular and contract shops employing 8 or more workers and producing women's coats (except fur coats) or suits. Also included are jobbing establishments employing 4 or more workers and operating cutting rooms or performing other parts of the operations in the manufacture of women's coats or suits. Shops primarily engaged in producing skirts are excluded, except for contract shops producing skirts for suit manufacturers or jobbers.

[3] Earnings data exclude premium pay for overtime and night work.

respectively). In the other cities, average earnings varied from $2.10 in San Francisco to $3.29 in Los Angeles. The earnings of section system operators ranged from $1.23 in St. Louis to $2.29 in Los Angeles and were from 5 cents to $1.24 below the wage levels of single-hand (tailor) system operators in cities having both types of sewing-machine work.

Earnings levels for finish hand sewers, numerically the largest single group of workers in the industry, were $1.50 or more an hour in half of the areas studied. These workers averaged as low as $1.04 in Kansas City and $1.17 in St. Louis, and as high as $2.02 in Los Angeles and $2.13 in New York.

Cutters and markers, and pressers, predominantly men workers, were among the highest paid in the industry. Earnings of cutters and markers exceeded $2.00 an hour in 9 of the 12 cities, and ranged from $1.56 in Kansas City to $3.34 in Los Angeles. On pressing operations, earnings were above $2.00 in 6 of 11 cities for hand pressers, in 9 of 11 cities for machine pressers, and in 9 of 10 cities for workers who performed both hand and machine pressing. In 4 of the 9 cities having all of the three categories of pressing, average earnings were highest for the third group.

Earnings of thread trimmers were lowest of all jobs studied in each locality except Kansas City. Average earnings ranged from 66 cents in St. Louis to $1.19 in Newark-Jersey City.

Of the 61,000 workers engaged in the manufacture of women's coats and suits in the 12 cities in September 1949, 37,000 were employed in New York City and an additional 9,000 in the adjacent areas of Newark-Jersey City and Paterson. Earnings levels in New York City were above $2 an hour for all occupations studied except that of thread trimmers in which the average was 98 cents. New York City earnings were typically higher in regular shops than in contract shops. Average earnings of workers in Newark-Jersey City and Paterson, who were primarily employed in contract shops, were generally below those of contract shop workers in New York City. Of the other cities studied, occupational averages in

Straight-time average hourly earnings,[1] selected occupations in manufacture of women's coats and suits, in selected areas, September 1949

Occupation and sex	Baltimore	Boston	Chicago	Cleveland, Ohio	Kansas City, Mo.	Los Angeles	Newark-Jersey City, N. J.[2]	New York			Paterson, N. J.[2]	Philadelphia	St. Louis	San Francisco
								All shops	Contract shops	Regular shops[2]				
All plant occupations														
All workers	$1.69	$1.86	$2.05	$1.87	$1.17	$2.60	$1.80	$2.27	$2.13	$2.51	$1.52	$1.85	$1.52	$1.84
Men	1.99	2.14	2.64	2.42	1.36	3.40	2.18	2.54	2.43	2.69	2.03	2.29	1.95	2.72
Women	1.47	1.41	1.51	1.53	1.14	1.95	1.60	1.91	1.85	2.10	1.34	1.50	1.27	1.60
Selected plant occupations														
Cutters and markers	1.95	2.39	2.54	2.49	1.56	3.34	2.81	2.95	2.93	2.96	2.53	2.50	1.76	2.78
Men	1.95	2.39	2.54	2.49	1.74	(4)	2.81	2.95	2.93	2.96	2.53	2.50	(4)	(4)
Women					.98	(4)							(4)	(4)
Inspectors, final (examiners)	1.14		1.00	1.76	.88	1.26	1.72	2.07	1.86	2.29	1.52	1.48	1.00	1.24
Men	1.51		(4)	(4)		2.16	1.96	2.27	2.18	(4)	1.87	(4)		
Women	1.02		(4)	(4)	.88	1.07	1.44	1.40	1.33	(4)	1.27	(4)	1.00	1.24
Pressers, hand	2.13	1.94	3.53	2.29	1.22		2.40	2.75	2.57	3.16	2.14	1.90	1.84	1.77
Men	(4)	1.94	3.53	(4)	(4)		(4)	(4)	(4)	3.16	(4)	1.90	(4)	1.96
Women	(4)			(4)	(4)		(4)	(4)	(4)		(4)		(4)	1.68
Pressers, machine	2.57	2.37	2.87	2.48	1.65		2.20	2.86	2.73	3.59	2.47	3.11	1.97	2.92
Men	2.57	2.37	2.87	2.48	1.72		2.20	(4)	2.73	(4)	2.47	3.11	(4)	2.95
Women					1.27			(4)		(4)			(4)	2.79
Pressers, hand and machine		2.62	2.89	2.53		4.23	2.18	3.19	3.01	3.36	1.75	2.72	2.23	2.63
Men		2.62	(4)	2.53		4.23	2.18	3.19	3.01	3.36	1.75	(4)	2.23	(4)
Women			(4)									(4)		(4)
Sewers, hand (finishers)	1.51	1.58	1.75	1.43	1.04	2.02	1.63	2.13	1.99	2.34	1.33	1.47	1.17	1.47
Men	(4)	1.74	1.92	(4)	(4)	(4)	2.10	2.44	2.31	2.53	(4)	1.75	1.30	(4)
Women	(4)	1.57	1.73	(4)	(4)	(4)	1.59	2.04	1.93	2.24	(4)	1.46	1.16	(4)
Sewing machine operators, section system	1.56		2.18		1.32	2.29	1.86	2.09	2.07	2.23	1.62	1.95	1.23	
Men	1.59		2.47		(4)	(4)	2.36	2.39	2.39	2.40	2.31	2.93	(4)	
Women	1.56		1.96		(4)	(4)	1.76	1.95	1.92	2.14	1.49	1.73	(4)	
Sewing-machine operators, single-hand (tailor) system	2.80	2.22	2.84	2.83		3.29	1.99	2.68	2.47	3.01	1.67	2.41	2.20	2.10
Men	3.20	(4)	3.16	2.87		3.58	2.58	2.78	2.55	3.04	(4)	(4)	2.54	2.97
Women	2.16	(4)	2.02	2.24		2.60	1.68	2.25	2.23	2.39	(4)	(4)	1.92	1.96
Thread trimmers (cleaners)	.71		.91	.89	1.13	.84	1.19	.98	.98	.98	.94	.80	.66	
Men								1.26	(4)	(4)				
Women	.71		.91	.89	1.13	.84	1.19	.97	(4)	(4)	.94	.80	.66	

[1] Excludes premium pay for overtime and night work.
[2] Industry primarily composed of contract shops. Regular shops are predominant in other areas except New York.
[3] Includes jobbing establishments performing cutting operations, in addition to those performing all manufacturing operations.
[4] Insufficient data to justify presentation of an average.

Los Angeles were among the highest and in Kansas City among the lowest.

Comparisons of earnings in September 1949 with those reported in a similar study in July 1946 showed increases averaging over 10 percent for workers in half of the 12 cities. A slight decline of earnings in one city did not reflect a reduction in wage rates, but probably resulted from changes in work flow and other related factors under incentive methods of wage payment.

Related Wage Practices

A large majority of the plant workers in the cities studied were covered by agreements with the International Ladies' Garment Workers Union of America (AFL).

Provisions in union agreements on paid holidays and vacation pay differed among the areas studied. In New York City and in New Jersey cities, 6½ paid holidays were granted to time workers only. Other cities in which union agreements did not specify paid holidays for incentive workers were Chicago, Cleveland, and Los Angeles. Time workers in these cities were granted 4, 3, and 5 paid holidays, respectively. Union agreements in San Francisco stipulated one paid holiday for incentive workers and two for time workers. Provisions in other cities were identical for time and incentive workers, and ranged from three paid holidays in Boston to six in Baltimore.

In accordance with the terms of the union agreements, employers in most of the cities studied made contributions, based on a fixed percentage of their pay rolls, to a union-administered health and welfare fund, from which vacation payments were made to union workers. The amounts of contribution and the conditions of eligibility for vacation payments varied. In New York City, Newark-Jersey City, and Paterson, employers contributed 3½ percent of their weekly pay rolls for workers covered by the union agreements. Workers with 6 months' union membership became eligible for vacation-pay benefits, and after a year's service received amounts ranging from $35 to $50 ($60 maximum in New York City), depending upon their occupations. In some cities, the distribution of vacation pay was based on a fixed percentage of the worker's annual earnings. Other benefits, such as sick and death benefits and hospitalization, were also disbursed from the union health and welfare funds.

In Chicago, Cleveland, Kansas City, and St. Louis, workers were granted paid vacations directly by the employers and received 1 week with pay after 1 year of service.

Printing Industry: Union Scales, July 1, 1949[1]

WAGE SCALES OF UNION WORKERS in the printing trades advanced 12 percent, or 24 cents an hour, between January 2, 1948, and July 1, 1949, according to the Bureau of Labor Statistics' survey of union scales in the printing industry.[2] The average union wage scale thus rose to $2.22 on July 1, 1949.[3]

In book and job (commercial) shops, the union scale averaged $2.08 an hour, as compared to the $2.39 and $2.60 hourly averages for day and night workers, respectively, on newspapers. Part of this difference can be attributed to the inclusion of rates for lesser skilled workers—bindery women and press assistants and feeders—in the average for book and job shops. For composing room crafts—hand compositors, machine operators, and machine tenders—important in both newspaper and commercial work, hourly scales for day work were typically higher in newspaper establishments, averaging about 3 percent above those in commercial shops. For photoengravers, however, the average day work scale was $2.70 an hour for both type shops on July 1, 1949.

Only a very small proportion of the workers included in the study did not have their wage scale

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[1] By John F. Laciskey of the Bureau's Division of Wage Statistics. Mimeographed listings of union scales by occupation are available for any of the 77 cities included in the survey. A forthcoming bulletin will contain detailed information on the industry.

[2] Information was based on union scales in effect on July 1, 1949, and covered 119,250 union printing tradesmen in 77 cities ranging in population from 40,000 to over 1,000,000. Data were obtained partially from local union officials by mail questionnaire. In some cities local union officials were visited by Bureau representatives for the desired information. Information was also obtained from central trade associations and union sources and from union publications.

Union scales are defined as the minimum wage rates or maximum schedules of hours agreed upon through collective bargaining between employers and trade-unions. Rates in excess of the negotiated minimum which may be paid for special qualifications or other reasons are not included.

[3] Average rates, designed to show current levels, are based on all rates reported for the current year in the cities covered; individual rates are weighted by the number of union members working at the rate. These averages are not measures for yearly comparisons because of annual changes in union membership and in classifications studied.

raised by contract negotiations effective between January 2, 1948, and July 1, 1949. Some workers had more than one increase during this time.

The standard workweek for union workers in the printing trades averaged 37.3 hours on July 1, 1949, representing a slight decrease from the previous study. For book and job shops, the average standard workweek comprised 37.5 hours, as compared to 36.9 in newspapers.

Trend of Union Wage Scales

Union scales in the printing trades rose by 12 percent between January 2, 1948, and July 1, 1949, which was substantially less than the 27-percent advance in the previous 18-month period and smaller than the 17-percent rise in the year after VJ-day (July 1, 1945, to July 1, 1946). These upward movements in levels of union scales since the cessation of hostilities in 1945 account for over four-fifths of the total advance in the past 10 years. The level on July 1, 1949, was 90.9 percent above that of June 1, 1939 (table 1).

TABLE 1.—*Indexes of union wage scales and weekly hours in the printing trades, 1939–49* [1]

[June 1, 1939=100]

Date	Index of wage scales			Index of weekly hours		
	All printing	Book and job	Newspaper	All printing	Book and job	Newspaper
1939: June 1	100.0	100.0	100.0	100.0	100.0	100.0
1940: June 1	101.4	100.9	102.2	99.8	99.8	99.7
1941: June 1	102.6	102.0	103.6	99.8	99.8	99.3
1942: July 1	107.0	106.4	108.1	99.5	99.8	99.2
1943: July 1	110.4	109.3	112.6	99.8	100.1	99.2
1944: July 1	113.1	112.2	115.1	99.8	100.1	99.2
1945: July 1	114.6	113.7	116.7	99.8	100.1	99.2
1946: July 1	134.2	133.7	135.5	97.3	96.6	98.8
1948: January 2	170.2	169.8	171.5	95.5	94.4	97.8
1949: July 1	190.9	190.5	192.4	95.3	94.3	97.3

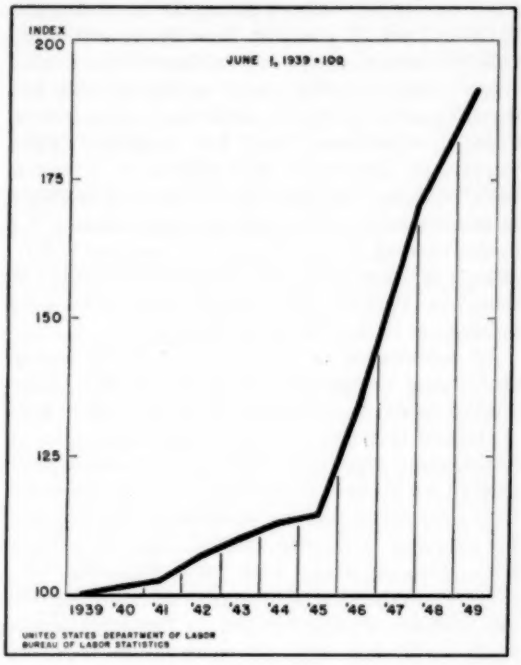
[1] Index series designed for trend purposes. Periodical changes in union scales are based on comparable quotations for the various occupations in consecutive periods, and are weighted by number of union members reported at each quotation in the current survey period.

Although scales for newspaper work are normally above those in book and job shops, the rate of increase during the 18-month period was identical for both type establishments. However, since the termination of World War II, scales in commercial (book and job) shops moved upward slightly more than those in newspapers; the comparable advances were 67.5 and 65 percent, respectively.

Practically all organized printing-trades workers received at least one upward adjustment in their scale of wages since January 2, 1948. Nearly two-fifths had increases of 10 to 15 percent, and three-tenths reported gains of 5 to 10 percent, the former being most common in book and job, and the latter most prevalent in newspapers. Raises of 10 to 15 cents an hour were received by a fifth of the workers in the trades; a slightly larger proportion had their scales advanced 20 to 25 cents an hour. Increases of the latter magnitude occurred more frequently in newspapers than in commercial work. Individual rate advances in both types of work, however, varied from less than 5 cents to over 65 cents an hour.

The extent of wage adjustments since VJ-day is reflected by a comparison of wage scales in effect July 1, 1945, and July 1, 1949. About three-fifths

Indexes of Union Wage Scales in Printing Trades



of the union printing-trades workers were employed on July 1, 1945, at scales ranging from $1.20 to $1.60 an hour, but less than 5 percent of the workers had scales falling within this range 4 years later. However, a seventh of the printing-trades workers, chiefly bindery women and press assistants and feeders, had hourly scales under $1.60 on July 1, 1949. Hourly scales of $2 to

$2.60 were received by three-fifths of the union printing-trades workers on July 1, 1949, as compared with scales of $1.80 to $2.40 for a similar proportion of workers on January 2, 1948.

Rate Variations by Type of Work

Union wage scales are generally distinguished according to the type of work performed by the establishment—book and job (commercial) or newspaper. In commercial shops, bindery women and press assistants and feeders, who perform routine and lesser skilled tasks, account for a substantial proportion of the work force. In contrast, the work force in newspapers is primarily composed of skilled journeymen.

In book and job shops, the level of hourly scales on July 1, 1949, was $2.08 as compared with $2.49 in newspapers. Day-shift workers in newspapers had a level of $2.39, night-shift workers one of $2.60. The day-shift level on newspapers was 15 percent above that in commercial shops.

For the group of cities surveyed on July 1, 1949, upward adjustments of hourly wage scales since January 2, 1948, averaged 24 cents for all printing-trades workers, 23 cents in book and job shops, and 27 cents in newspapers. Gains registered in the preceding 18-month period ending January 2, 1948, averaged 42, 40, and 47 cents an hour, respectively. Seattle (Wash.) reported an average increase in scale levels of 45.7 cents between January 2, 1948, and July 1, 1949, the largest gain for any of the cities surveyed. Oklahoma City (Okla.) and Spokane (Wash.) also reported gains averaging about 40 cents an hour. Scales moved upward the least in Jackson (Miss.), where the average increase amounted to 9 cents.

Half of the cities reported advances of 15 to 25 cents in the scale levels for book and job shops, and 20 to 30 cents for newspapers (table 2).

TABLE 2.—*Increases in union wage rates in the printing trades, by city and industry branch, Jan. 2, 1948, to July 1, 1949*

City	All printing trades		Book and job		Newspaper		City	All printing trades		Book and job		Newspaper	
	Percent of increase	Cents increase	Percent of increase	Cents increase	Percent of increase	Cents increase		Percent of increase	Cents increase	Percent of increase	Cents increase	Percent of increase	Cents increase
All cities	12.2	24.2	12.2	22.7	12.2	27.1							
Atlanta, Ga	9.2	17.5	8.6	15.5	10.5	22.0	Mobile, Ala	16.7	31.1	8.2	14.8	19.0	35.7
Baltimore, Md	11.9	21.5	13.8	20.9	10.5	22.1	Newark, N. J	10.8	22.6	11.2	22.0	10.3	23.6
Birmingham, Ala	17.6	31.0	14.4	23.6	20.5	38.6	New Haven, Conn	14.1	24.4	15.1	24.9	12.5	23.6
Boston, Mass	10.6	20.5	12.9	21.8	7.7	18.1	New Orleans, La	13.0	21.8	12.8	20.6	13.6	24.0
Buffalo, N. Y	10.5	20.1	10.6	18.6	10.3	22.6	New York, N. Y	11.2	23.4	11.4	22.4	10.7	26.5
Butte, Mont	14.2	26.4	16.7	25.5	13.0	27.0	Norfolk, Va	14.3	27.6	8.7	15.4	15.4	30.1
							Oakland, Calif	13.3	29.9	9.4	21.2	19.2	42.7
Charleston, S. C	11.8	20.7	2.6	4.7	14.6	25.6	Oklahoma City, Okla	23.6	40.0	13.4	22.3	27.3	50.2
Charleston, W. Va	7.5	13.8	8.7	15.4	5.9	11.5	Omaha, Nebr	15.4	27.8	20.5	33.1	12.1	23.7
Charlotte, N. C	12.4	22.8	17.4	29.3	10.4	19.9	Peoria, Ill	11.0	21.2	12.6	22.4	9.8	20.2
Chattanooga, Tenn	12.3	24.6	9.8	17.5	13.1	25.7	Philadelphia, Pa	14.2	25.9	16.3	28.4	9.8	19.7
Chicago, Ill	11.4	25.1	9.9	21.8	16.6	36.6	Phoenix, Ariz	15.7	31.1	19.4	36.2	13.6	27.9
Cincinnati, Ohio	8.9	18.4	8.9	16.5	9.0	20.9	Pittsburgh, Pa	13.7	26.9	15.0	27.5	12.8	26.5
Cleveland, Ohio	9.3	19.1	11.4	21.0	6.3	15.2	Portland, Maine	8.2	12.8	8.7	10.3	8.2	13.2
Columbus, Ohio	10.9	21.7	10.6	19.6	11.4	25.8	Portland, Oreg	15.4	31.9	17.9	33.1	13.6	30.8
							Providence, R. I	10.1	21.6	14.2	26.0	8.6	19.6
Dallas, Tex	8.1	17.3	6.2	12.1	9.3	21.2	Reading, Pa	14.3	25.7	13.5	22.8	15.0	28.1
Dayton, Ohio	9.8	18.5	10.4	19.0	7.1	16.0	Richmond, Va	13.0	18.1	12.1	14.1	14.2	20.7
Denver, Colo	16.2	29.1	22.3	33.5	11.3	24.1	Rochester, N. Y	17.4	31.4	17.6	29.9	17.0	34.3
Des Moines, Iowa	12.7	22.5	11.2	18.4	15.2	31.4	Rock Island (Ill.) district[1]	8.9	16.2	8.4	13.6	9.2	18.1
Detroit, Mich	12.9	26.3	15.4	28.4	9.2	22.2	St. Louis, Mo	5.9	11.9	5.9	10.6	6.1	14.8
Duluth, Minn	15.3	25.6	19.0	26.4	14.0	25.3	St. Paul, Minn	16.6	24.6	17.5	24.2	12.6	28.0
El Paso, Tex	12.7	25.2	7.7	14.8	13.5	27.0	Salt Lake City, Utah	12.5	24.0	6.9	12.0	13.6	26.9
Erie, Pa	12.0	23.0	12.0	21.4	12.0	23.6							
							San Antonio, Tex	12.0	22.0	15.5	23.0	10.7	21.4
Grand Rapids, Mich	10.3	20.3	5.6	10.6	13.2	26.8	San Francisco, Calif	12.7	26.7	9.1	18.9	19.7	42.6
Houston, Tex	11.5	24.8	11.2	23.6	11.7	25.6	Savannah, Ga	11.3	20.8	12.1	17.8	11.2	21.3
Indianapolis, Ind	12.0	23.1	10.7	19.3	13.8	29.5	Scranton, Pa	13.3	19.6	12.6	17.2	15.5	30.7
Jackson, Miss	5.9	9.1	18.2	25.0	0.0	0.0	Seattle, Wash	21.9	45.7	21.4	43.0	22.7	50.4
Jacksonville, Fla	6.7	14.7	14.9	23.0	5.6	13.1	South Bend, Ind	7.6	14.7	8.2	14.9	6.5	14.0
Kansas City, Mo	10.9	21.9	10.0	17.0	16.4	32.9	Spokane, Wash	22.2	40.8	21.0	31.9	22.6	45.2
Knoxville, Tenn	13.2	25.4	16.1	29.7	11.3	22.4	Springfield, Mass	16.6	25.9	18.9	27.9	12.1	21.4
Little Rock, Ark	16.6	26.6	11.0	16.3	22.2	38.7							
							Syracuse, N. Y	15.9	28.6	16.0	24.4	15.8	31.3
Los Angeles, Calif	16.7	33.8	16.5	32.7	16.9	35.6	Toledo, Ohio	8.1	16.8	6.8	12.2	9.1	21.0
Louisville, Ky	11.7	22.1	12.6	19.7	11.1	24.2	Washington, D. C	15.1	26.0	17.5	26.7	10.4	24.0
Manchester, N. H	7.3	13.0	8.2	12.8	6.8	13.1	Wichita, Kans	14.4	24.5	13.4	20.9	15.0	27.6
Memphis, Tenn	15.0	25.9	18.5	25.4	12.7	26.3	Worcester, Mass	19.0	35.7	15.9	27.3	19.9	38.6
Miami, Fla	4.5	9.7	0.0	0.0	7.8	18.9	York, Pa	10.5	17.6	11.3	17.9	9.5	17.1
Milwaukee, Wis	12.3	22.5	9.9	17.4	17.9	36.2	Youngstown, Ohio	8.4	13.6	8.6	12.6	8.0	16.2
Minneapolis, Minn	20.0	35.7	24.3	39.3	11.4	25.8							

[1] Includes Rock Island and Moline, Ill., and Davenport, Iowa.

Of the 11 printing trades studied in book and job shops, only 2—bindery women and press assistants and feeders—averaged under $2 an hour. Among the 8 newspaper crafts studied, the lowest rates reported were for mailers. In both branches of the industry, photoengravers showed the highest level with average scales of $2.70 in book and job shops and $2.80 in newspapers; the level for day work in newspapers was the same as for commercial shops. Electrotypers were the only other craftsmen in book and job work to exceed the $2.50 level of journeymen pressmen in newspapers. Stereotypers and mailers were the only printing trades in newspapers with scale levels below this figure. Compositors, important in both branches of the industry, had higher scale levels in newspapers, their day-work scales averaging about 3 percent above those in book and job shops.

City and Regional Variation

Union wage scales in the printing industry have always varied widely among cities. Average scale levels in book and job shops, which employed two-thirds of the unionized printing-trades workers studied, ranged from $1.28 in Portland (Maine) to $2.47 an hour in Oakland (Calif.). Five of the six Pacific Coast cities surveyed had average scale levels exceeding $2.15 an hour. Levels below $1.65 were found in 8 cities.

TABLE 3.—*Average hourly wage scales in the printing trades, by region, July 1, 1949*

Region	Average hourly scales in—		
	All printing	Book and job	Newspaper
United States	$2.22	$2.08	$2.49
New England	2.11	1.90	2.42
Middle Atlantic	2.22	2.09	2.56
Border States	1.99	1.75	2.40
Southeast	2.09	1.90	2.29
Great Lakes	2.26	2.16	2.51
Middle West	2.07	1.89	2.42
Southwest	2.18	1.96	2.35
Mountain	2.14	1.91	2.33
Pacific	2.40	2.31	2.56

In newspapers, New York ranked highest with a scale level of $2.76 followed in order by Seattle (Wash.), Oakland (Calif.), Detroit (Mich.), and Miami (Fla.), all with levels above $2.60. Jackson (Miss.), was lowest with a level of $1.65 an hour. Of the 77 cities studied, levels below $2.15 were found in 14 cities, and in only 4 were the levels under $2.

The differentials existing between cities in book and job shops were not necessarily the same as in newspapers. For example, wage levels of book and job printing in Chicago were 28 cents above those in New York but in newspapers they were 19 cents below. Similarly, Los Angeles commercial scales exceeded San Francisco levels by 6 cents, but newspaper work in San Francisco had a level 13 cents higher than Los Angeles.

Average hourly wage scales are typically higher in the larger metropolitan centers. In newspapers, the level of scales ranked in descending order according to city size; the highest average scale being in the largest-sized cities and the lowest in the smallest-sized cities included in the survey. In commercial shops, however, the second largest-sized city group (500,000 to 1,000,000 population) had an average hourly scale level that was 2 cents below the next smaller-sized group. The group of cities with populations of 40,000 to 100,000 had an average level slightly above the next larger-sized group. Hourly wage-scale levels, on July 1, 1949, for commercial and newspaper printing-trade workers in the various city-size groups, are as follows:

Cities with population of—	Average hourly scales	
	Book and job	Newspapers
1,000,000 and over	$2.214	$2.607
500,000 to 1,000,000	1.964	2.495
250,000 to 500,000	1.982	2.466
100,000 to 250,000	1.811	2.266
40,000 to 100,000	1.825	2.097

Within each size group, the city rank tended to vary with the branch of industry. Chicago and Los Angeles ranked above New York and Detroit in book and job shops but the reverse was true for newspapers. Knoxville, which had the highest level in book and job shops among cities with 100,000 to 250,000 population, ranked sixteenth in newspapers; Miami, thirteenth in commercial shops, had the highest scale level for newspapers in this city-size group.

On a regional basis, union scales were highest on the Pacific Coast ($2.40) and lowest in the Border States ($1.99). Only two regions—Great Lakes and Pacific—had scales exceeding the national hourly average of $2.22; it was equaled in the Middle Atlantic region. The regional ranking for commercial shops was the same as for all print-

ing. In newspapers, the level was highest in the Middle Atlantic and Pacific Coast regions, with average hourly scales of $2.56, and lowest in the Southeast, $2.29 an hour. The Great Lakes, with an average scale of $2.51, was the only other region above the $2.49 national average (table 3).

Standard Workweek

Union agreements in effect on July 1, 1949, specified a standard workweek of 36¼ hours for nearly two-fifths of the workers in organized book and job shops; of 37½ hours for three-eighths; and of 40 hours for one-fifth. Less than 1 of every 20 workers had a work schedule of less than 36¼ hours. In newspapers, over half of the printing-trades workers were covered by contracts which provided for a 37½-hour standard workweek; over a sixth had a 36¼-hour workweek; and about an eighth had a weekly schedule of 35 hours.

A number of contracts specified work schedules of fewer hours for night work than for day work. Standard weekly schedules of 37½ were in effect for two-fifths of those on night work as compared to two-thirds on day work; of 36¼ hours for over a fifth of those on night work and for slightly more than an eighth of the day workers; and of 35 hours for over a sixth of the night workers and a sixteenth of the day workers.

Changes in weekly hours between January 2, 1948, and July 1, 1949, affected relatively few of the union printing-trades workers. The reduction in weekly schedules lowered the index of weekly hours slightly. On July 1, 1949, the index stood at 95.3 and the average standard workweek was 37.3 hours.

Women in Manufacturing, September 1949

THE PROPORTION OF WOMEN in 21 major manufacturing industry groups recently varied from 75 percent of the total in the apparel and other finished textile products classification to 5 percent both in the products of petroleum and coal and in the primary metal industries. In manufacturing as a whole, women made up 27 percent of the total number employed in September 1949. Actual levels of employment in manufacturing are given in the accompanying table for all manufacturing combined, the durable and nondurable goods divisions, and the major subgroups, as well as the number and proportion of women employees in each instance.

Employment of women in manufacturing establishments, September 1949

Industry group	All employees (in thousands)	Women	
		Number (in thousands)	Percent of total
Manufacturing	14,312	3,810.2	27
Durable goods	7,416	1,195.3	16
Nondurable goods	6,896	2,614.9	38
Ordnance and accessories	22.7	4.1	18
Food and kindred products	1,700	466.2	27
Tobacco manufactures	101	61.4	61
Textile-mill products	1,218	523.1	43
Apparel and other finished textile products	1,197	891.8	75
Lumber and wood products (except furniture)	744	51.9	7
Furniture and fixtures	320	35.2	16
Paper and allied products	448	108.0	24
Printing, publishing, and allied industries	724	192.1	27
Chemicals and allied products	655	121.4	19
Products of petroleum and coal	247	11.5	5
Rubber products	211	56.7	27
Leather and leather products	395	182.7	46
Stone, clay, and glass products	482	77.1	16
Primary metal industries	1,099	57.1	5
Fabricated metal products (except ordnance, machinery, and transportation equipment)	863	154.8	18
Machinery (except electrical)	1,237	162.8	13
Electrical machinery	736	251.4	34
Transportation equipment	1,240	128.1	10
Instruments and related products	233	78.5	34
Miscellaneous manufacturing industries	439	177.6	41

Publication of the series of statistics relating to the employment of women in manufacturing establishments was recently resumed by the Bureau of Labor Statistics. The first release of the new series appeared in the Employment and Pay Rolls Detailed Report for October 1949.

In addition to the information on women here shown, the Detailed Report covers 103 individual industries. Similar data were scheduled for publication each quarter, the next to appear in the Detailed Report for January 1950.

Currently published data on women are not comparable with the old series released in the discontinued publication Women in Factories and in the 1947 edition of the Handbook of Labor Statistics. The current series relate to all women wage and salary employees; previously, the data dealt with production workers only. In addition, the recent revision of all employment series has resulted in a change in the definitions of industries and has made obsolete the levels of employment previously shown.

Arbitration Provisions in Union Agreements in 1949[1]

SOME TYPE OF ARBITRATION was provided for in 1,237, or 83 percent, of 1,482 current collective-bargaining agreements analyzed in a 1949 survey by the Bureau of Labor Statistics.[2] Although strictly comparable statistics regarding the prevalence of arbitration provisions in agreements of previous years are not available, a Bureau study in 1944, covering 14 selected manufacturing industries, indicated that 73 percent of the agreements analyzed contained arbitration clauses.[3] A National Industrial Conference Board study in 1945 found that 74 percent of 291 companies covered had agreements containing such clauses.[4]

No matter how carefully contracts are drafted, disagreements frequently arise regarding the meaning and application of clauses or issues not anticipated by the parties when the agreements were negotiated. Arbitration provisions in collective-bargaining agreements afford a procedure for settling such disputes by submitting them to an impartial umpire or board, whose decision shall be final and binding.

Arbitration, of course, has its drawbacks. Unions and employers occasionally fail to make a bona fide attempt to settle their differences by direct negotiation when an arbitrator is available to make the decision. Sometimes settlements imposed by an outsider (the arbitrator) leave the parties dissatisfied, even though they have agreed in advance to accept the decision. In a few instances the financial costs of arbitration impose a hardship, particularly on small employers and unions.

Arbitration has become an accepted practice in many industries (table 1). Indeed, voluntary submission of unsettled disputes to arbitration has been commonly followed in some industries for decades. The first international arbitration agreement between the American Newspaper Publishers Association and the International Typographical Union (AFL) was signed in 1901. The agreement covering the Printing Pressmen and Assistants' Union (AFL) was first signed in 1902, and similar agreements were signed shortly thereafter by other printing-trades unions.[5] Boards of arbitration were established in some branches of the apparel industry as early as 1910.[6] The late W. H. Mahon, former president of the Amalgamated Association of Street Electric Railway and Motor Coach Employees of America (AFL), was a leading advocate of arbitration as a means of settling disputes, and agreements of that union have included arbitration provisions for many years.[7] At the President's Labor-Management Conference of 1945, both labor and management representatives unanimously agreed that arbitration should constitute the final step in a sound grievance procedure, and recommended:

> The parties should provide by mutual agreement for the final determination of any unsettled grievance or disputes involving the interpretation or application of the agreement by an impartial chairman, umpire, arbitrator, or board. In this connection the agreement should provide:
>
> (a) A definite and mutually agreed-upon procedure of selecting the impartial chairman, umpire, arbitrator, or board;
>
> (b) That the impartial chairman, umpire, arbitrator, or board should have no power to add to, subtract from, change, or modify any provision of the agreement, but should be authorized only to interpret the existing provisions of the agreement and apply them to the specific facts of the grievance or dispute;
>
> (c) That reference of a grievance or dispute to an impartial chairman, umpire, arbitrator, or board should be reserved as the final step in the procedure and should not be resorted to unless the settlement procedures of the earlier steps have been exhausted;
>
> (d) That the decision of the impartial chairman, umpire, arbitrator, or board should be accepted by both parties as final and binding;
>
> (e) That the cost of such impartial chairman, umpire, arbitrator, or board should be shared equally by both parties.
>
> Any question not involving the application or interpretation of the agreement as then existing but

[1] Prepared in the Bureau's Division of Industrial Relations by James C. Nix, under the supervision of Irving Rubenstein.

[2] Agreements included in this study were in effect during all or some part of 1949. Of the 1,482 in the sample, 1,036 were in manufacturing industries and 446 in nonmanufacturing. Employment data were available for 3,020,000 workers covered by 977 of the agreements. About 47 percent of the agreements were concluded by unions affiliated with the American Federation of Labor, 39 percent by affiliates of the Congress of Industrial Organizations and 14 percent by independent unions.

[3] U. S. Department of Labor, Bureau of Labor Statistics, Bulletin No. 780: Arbitration Provisions in Union Agreements.

[4] Management Record, New York, April 1945.

[5] How Collective Bargaining Works, pp. 50-64. New York, Twentieth Century Fund, 1942.

[6] The Needle Trades, by Joel Seidman. New York, Farrar and Rinehart, 1942.

[7] The Union Leader, Chicago, Ill., Nov. 5, 1949.

which may properly be raised pursuant to agreement provisions should be subject to negotiation, conciliation, or such other means of settlement as the parties may provide.

Where an agreement contains a renewal clause and a change or modification or reopening of the agreement is requested by either party, or where the existing agreement is about to be terminated, ample time prior to the termination of the agreement should be provided for the negotiation of a new or modified agreement. If such negotiations should fail, the parties should make early use of conciliation, mediation, and where mutually agreed to, arbitration.

Nothing in this report is intended in any way to recommend compulsory arbitration, that is, arbitration not voluntarily agreed to by the parties.[8]

Widespread acceptance of arbitration for settlement of grievances arising during the life of the contract was revealed by the current analysis of contracts (see table 1).

Contract clauses vary considerably in detail and complexity. Some merely stipulate that all unsettled employee grievances shall be arbitrated. Others outline in detail the precise issues subject to arbitration, the form of submittal, composition of the arbitration agency, selection of arbitrators, and allocation of costs.[9]

Jurisdiction of Arbitrator

Some agreements limited the arbitrator to consideration of questions of interpretation and application of the contract provisions. Others extend the application of arbitration to all issues arising between the employer and the employee and union. A few place disputes over the terms of new or revised agreements within the jurisdiction of the arbitration agency (chart 1).

TABLE 1.—*Prevalence of arbitration provisions in 1,482 collective-bargaining agreements, by major industry group*

Percent of agreements containing arbitration clauses—					
90–100	80–89	70–79	60–69	50–59	40–49
Manufacturing	*Manufacturing*	*Manufacturing*	*Manufacturing*	*Manufacturing*	*Manufacturing*
Transportation equipment (except automobiles). Textiles. Apparel. Leather and its products. Food. Paper. Printing and publishing. Petroleum and coal products. Rubber. Miscellaneous manufacturing industries.	Electrical machinery. Nonferrous metals and their products. Chemicals.	Iron and steel and their products.	Machinery (except electrical). Automobiles. Lumber, furniture, and finished wood products.	Stone, clay, and glass products.	Tobacco.
Nonmanufacturing	*Nonmanufacturing*	*Nonmanufacturing*	*Nonmanufacturing*		
Transportation. Public utilities.	Mining, crude petroleum, and natural-gas production.[1] Wholesale trade. Retail trade.	Services. Miscellaneous nonmanufacturing industries.	Construction.[1]		

[1] The sample of agreements available for construction was very small in relation to the size of the industry and may not reflect accurately the prevalence of arbitration in this industry.

[2] The National Bituminous Coal Mining Agreement provides for arbitration of local and district disputes, "should differences arise between the mine workers and the operators as to the meaning and application of the provisions of this agreement, or should differences arise about matters not specifically mentioned in this agreement, or should any local trouble of any kind arise at the mine." If the dispute is national in character, it is to be settled "by the full use of free collective bargaining as heretofore known and practiced in the industry."

In more than four-fifths of the agreements, any grievances arising out of the application or interpretation of the terms of the agreements are specifically included within the scope of arbitration.

About 1 arbitration clause out of every 10 permitted the arbitrator to decide issues not covered by the agreement, as well as those covered. Some agreements give the arbitrator jurisdiction over all such issues, for example:

> All disputes and grievances which arise under this agreement as well as those on matters not specifically covered by this agreement shall be peaceably settled and resolved by arbitration.

Other agreements limit the arbitrator's jurisdiction over extra-contract issues to specified types of disputes, such as those arising from demands for general wage increases or decreases during the life of the agreement. The following illustrates this kind of provision:

[8] Report of Conference Committee on Existing Collective Agreements, as quoted in U. S. Department of Labor, Division of Labor Standards, Bulletin No. 77: The President's National Labor-Management Conference, November 5-30, 1945.

[9] For a wide variety of illustrative arbitration clauses, see U. S. Department of Labor, Bureau of Labor Statistics, Bulletin No. 908-16: Grievance and Arbitration Provisions, to be issued in April.

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> Either party hereto may request a general revision upwards or downwards in rates of pay . . . Requests for a revision under this section shall be in writing and shall be mailed or delivered to the other party not less than 60 days prior to the requested revision date. Upon the giving of such written notice, the parties shall immediately negotiate the request and if they are unable to agree within 15 days after the receipt thereof, either party may request arbitration of the dispute.

Few agreements (only 2 percent) permitted arbitration of the terms of a new or revised agreement. These allowed the arbitrator to decide the issues involved after the parties had attempted to negotiate a new agreement and had not succeeded in doing so.

About 15 percent of the agreements either did not outline the scope of the arbitrator's jurisdiction, or stated it in general terms such as "controversies between the parties."

In addition to, or in lieu of, specifying the matters which were within the arbitrator's jurisdiction, many agreements specified those that were not arbitrable. Over a third (36 percent) included provisions prohibiting the arbitrator from adding to, subtracting from, or otherwise changing the existing agreement.

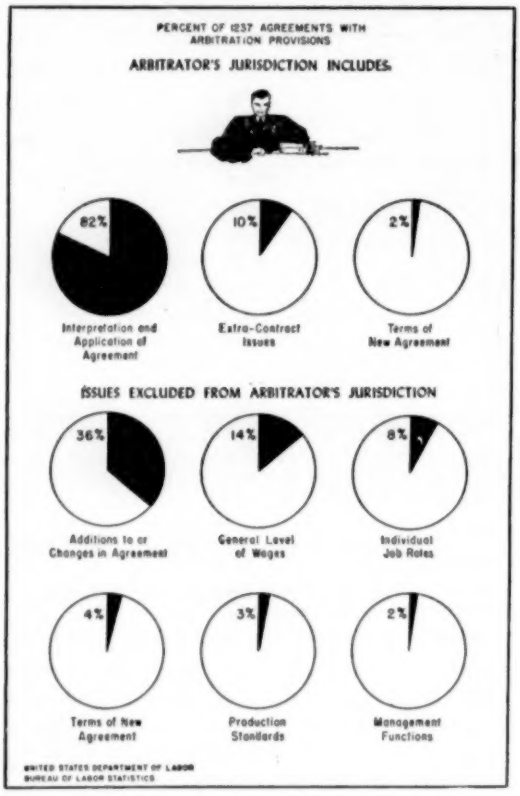
Arbitration of disputes regarding the terms of a new agreement were specifically prohibited by about 4 percent of the agreements.[10] A typical clause follows:

> In the event of termination of this agreement, negotiations for a new agreement shall be commenced 40 days prior to the termination of this agreement. Nothing in this agreement shall be construed as an agreement to submit to arbitration any questions involved in the negotiation for a new agreement.

About 14 percent of the agreements excluded from the arbitrator's jurisdiction grievances or disagreements concerning increases or decreases in the general wage level.

Other subjects excluded from arbitration by some agreements were individual job rates, production standards or work loads, management rights, union security, questions involving union laws and constitutions, jurisdictional disputes, safety and health measures, pension, insurance, and other benefit plans.

Chart 1. Jurisdiction of Arbitrator



Some agreements with arbitration clauses failed to indicate specifically the functions or the limitations on the arbitrator. The chart, therefore, refers only to those agreements which dealt with these problems in sufficient detail to permit classification as shown above.

Arbitration Machinery

The arbitration machinery provided by agreements may consist of a single individual or a board of several individuals. Appointments may be temporary or on a permanent basis for the life of the contract or for a stipulated period (see table 2).

If a board is used, the parties usually designate an equal number of arbitrators—ordinarily only one, but sometimes two or more—for each side. In some instances, no impartial third party is added unless the arbitrators designated by employer and union are unable to reach a decision. Usually, however, a third, or neutral, party is

[10] Over 60 percent of the agreements did not mention arbitration of disputes over the terms of new agreements, but ordinarily such disputes are not arbitrable under terms of existing contracts.

designated before the proceedings begin. The third party may be agreed upon by the employer and the union directly or chosen by the arbitrators appointed to the board. In the event of a deadlock over the selection, an impartial agency or individual may be called upon to choose the third party.

Many employers and unions prefer an arbitration board, because under that plan their representatives participate in the discussions and proceedings and have a part in making the decision. This may be especially important in cases involving technical matters, with which an outsider might not be familiar. On the other hand, a board of arbitrators may be more expensive than a single arbitrator, and in some instances more time-consuming.

An individual arbitrator, or a separate board, may be chosen each time a dispute arises; or the same individual or board may serve as frequently as necessary during the life of the agreement or for some other designated period. The first situation is often referred to as "ad hoc arbitration," and the second as "permanent arbitration," the latter meaning that the arbitrator or arbitrators serve for relatively long and generally fixed periods.

"Ad hoc" arbitration and permanent arbitration each has certain advantages. A permanent arbitrator can become familiar with the practices and problems of the industry and with the personalities of management and union representatives. A permanent arbitrator's decisions are likely to be consistent with one another, thereby establishing precedents for the guidance of employer and union in similar problems. Also, when the arbitrator serves on a continuous basis, no time need be lost in selecting an arbitrator each time a case is referred to arbitration. On the other hand, many employers and unions do not have enough arbitration work to justify retaining a permanent arbitrator. Moreover, the parties may wish to have certain types of cases, such as time-study or incentive-wage disputes, arbitrated by specialists technically qualified in the field involved, rather than have one arbitrator handle all types of disputes.

The most prevalent type of arbitration machinery provided by collective-bargaining agreements is a temporary board. The following clause illustrates this type of machinery, which was provided by 52 percent of the agreements containing arbitration provisions:

TABLE 2.—*Types of arbitration machinery established by collective-bargaining agreements*

Industry group	Number of agreements with arbitration provisions	Single arbitrator		Board of arbitrators		Other [2]	Details of machinery not specified
		Permanent	Temporary	Permanent	Temporary		
		Percent of agreements [1]					
All industries	1,237	10	27	4	52	3	4
All manufacturing industries	859	11	33	5	43	4	4
Iron and steel and their products	93	4	59	4	24	6	3
Electrical machinery	47	4	24		38	4	30
Machinery, except electrical	55	7	36		47	4	6
Transportation equipment, except automobile	36	22	41	3	28	3	3
Automobiles	11	46	18	9	27		
Non-ferrous metals and their products	50	4	48	4	32	10	2
Lumber, furniture, and finished wood products	41		15		80		5
Stone, clay, and glass products	40	12	28	3	45		12
Textiles	79	11	33		38	17	1
Apparel	19	74	5	16		5	
Leather and its products	50	7	74		14	3	2
Food	96	8	12	7	73		
Tobacco	9	11	56		33		
Paper	29		38	7	48	7	
Printing and publishing	33	6	21	43	27	3	
Chemicals	55	7	22		69	2	
Petroleum and coal products	48		21		75		4
Rubber	42	55	7	10	26		2
Miscellaneous	17	6	29		47	6	12
All nonmanufacturing industries	378	6	16	4	70	1	3
Mining, crude petroleum, and natural gas production	26	23	19		54	4	
Transportation	70	3	16		73		8
Public utilities	33		18		82		
Wholesale trade	64	5	9	5	79	2	
Retail trade	76	3	18	4	71	3	1
Services	86	8	16	7	65		4
Construction	14	7		14	65		14
Miscellaneous	9	11	33	11	45		

[1] Percentages based on total number of agreements with arbitration provisions as shown in first column.

[2] Most of these are agreements which allow employer and union the option of using a single arbitrator or a board of arbitrators.

> There shall be three arbitrators, one to be appointed by each party to this agreement and the third to be selected by the two so appointed. The party desiring arbitration shall appoint his arbitrator and shall give notice in writing to the other party of such appointment, together with a written statement of the question to be arbitrated. After receiving such notice and statement, the other party shall appoint an arbitrator within seven (7) days and give notice in writing to the other party of such appointment. In the event that two arbitrators so appointed cannot within three (3) days select a third arbitrator who is able and willing to serve, the two arbitrators shall jointly request the American Arbitration Association to appoint a third arbitrator.

A permanent board of arbitrators was designated by 4 percent of the agreements. The impartial third party and the arbitrators representing the employer and the union may all serve on a permanent basis, but in some cases the impartial third party is selected each time a dispute arises, although the employer and union representatives are permanent members of the board. In a few instances, the arbitrators representing the employer and the union serve on a temporary basis, and only the third party is permanent.

A single "ad hoc" arbitrator was specified by 27 percent of the agreements. The following clause is typical: "The parties will agree upon a single arbitrator to hear the case and make a final and binding decision."

Permanent single arbitrators were designated in 10 percent of the agreements analyzed. Provisions for permanent arbitration occurred most frequently in the apparel, rubber, and automobile industries, although they were also noted in a few agreements in most of the other industries. The following clause was typical:

> The impartial arbitrator shall be [name of individual] who is hereby designated to act throughout the term and continuance of this agreement. In the event of his resignation, permanent physical incapacity, or death, his successor shall be chosen by a committee to be composed of three representatives of the union and three representatives of the [company] and the majority of the whole committee shall be necessary to the choice of such successor. Such successor shall be chosen within fifteen (15) days after the vacancy shall have occurred.

A few agreements which provided for arbitration did not specify the nature of the machinery to be used.

Selection of Arbitrator by Impartial Agency

Often employers and unions find it difficult to agree upon the selection of individuals to serve as arbitrators. Each party may have reservations regarding the impartiality of a person nominated by the other party. Over a third of the agreements with arbitration provisions (37 percent) failed to provide any predetermined method of breaking a deadlock over selection of an arbitrator. The remainder (63 percent) provided for use of an impartial agency in making the selection.[11]

Immediate appointment of the arbitrator by an agency, without the union and the employer first attempting to make a selection jointly, was provided for in some agreements. For example: "The arbitrator shall be selected by the Federal Mediation and Conciliation Director and his decision shall be final and binding upon both parties and the employees involved." More often the impartial agency was called upon only in the event of a deadlock. An example of such a clause reads:

> Company and [union] shall endeavor to agree upon a single arbitrator who shall have full power to decide the matter. If the parties cannot agree upon a single arbitrator, then either party upon notice to the other shall have the right to apply to the American Arbitration Association to appoint such arbitrator.

The services of the impartial agency in some instances was limited to submission of a list of qualified arbitrators from which union and employer made the actual selection. In other instances the designated agency was empowered to appoint the arbitrator if the parties were unable to make a selection from the list.

The Government agency most frequently named was the Federal Mediation and Conciliation Service—designated in 32 percent of the agreements containing arbitration provisions.[12] To facilitate the selecting of arbitrators, the Federal Mediation and Conciliation Service maintains an extensive current file of qualified arbitrators

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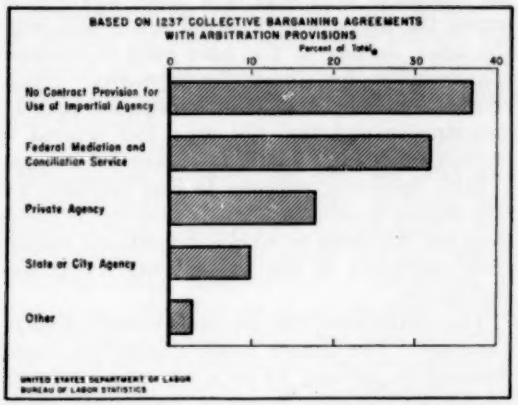
[11] A few of these agreements were not completely clear as to whether the impartial agency merely assisted in the selection of the arbitrator or actually functioned as arbitrator.

[12] A few were long-term agreements which were signed when the U. S. Conciliation Service was a part of the U. S. Department of Labor and named the Department of Labor as the agency to select the arbitrator. Included also were a few agreements which allowed the parties the option of using the Federal Mediation and Conciliation Service or some other designated agency.

from which a list of five names is submitted to the parties requesting it. If the parties cannot agree upon an individual the Federal Mediation and Conciliation Service will, on request, either appoint an arbitrator or make a selection by a method in accordance with the wishes of the parties.

About 18 percent of the agreements designated various private agencies—most frequently the American Arbitration Association, a nonpartisan, nonprofit organization which has been active in the field of labor arbitration since 1937. Where arbitration is conducted under the rules of the American Arbitration Association, the parties may appoint their arbitrator directly, select him from a list submitted by the association, or have him appointed by the association.[13]

Chart 2. Impartial Agencies Used in Selection of Arbitrator



An additional 10 percent of the agreements named various State or municipal officials, judges, or agencies as those authorized to aid in selection of the arbitrator. A few agreements designated individuals or organizations other than those mentioned above or merely stated that the arbitrator be appointed by an individual or organization acceptable to both parties.

Cost of Arbitration

Prevailing practice calls for the sharing of arbitration costs by employer and union. Almost three-fourths of the agreements analyzed which provided for arbitration required the employer and the union to share the cost equally. If the arbitration machinery consists of a tripartite board, the expenses of the impartial third party are shared, each party usually assuming the expense of its own representative on the board. A few agreements (less than 1 percent of the total) required the party which loses the arbitration decision to pay the entire cost of arbitration. Most of these agreements required that the decision specify the loser. Provisions requiring the loser to pay the costs are probably intended to discourage the employer or union from carrying petty or unfounded cases to arbitration. Only one agreement in the sample called upon the employer to pay the full cost of arbitration; another specified that only an arbitrator willing to serve free of charge would be selected. The remainder of the agreements (about a fourth of the total) made no reference to allocation of the cost.

[13] Voluntary Labor Arbitration Rules of the American Arbitration Association.

Immigration and Emigration, Fiscal Year 1949[1]

THE NUMBER OF IMMIGRANTS admitted to the United States for permanent residence has increased each year since the end of World War II. During the fiscal year 1949, immigrants who legally entered the country numbered 188,317, as compared with 170,570 in 1948.

Sixty percent (or 113,046) of the immigrants entering in 1949 were admitted under quota. Slightly more than a third of these quota immigrants were "refugees from tyranny and oppression," and were admitted under the Displaced Persons Act of 1948.

The authorized 1949 quota for northern and western Europe was only 47.3 percent filled. Quotas for southern and eastern Europe were oversubscribed by 110.4 percent, "because future quotas are mortgaged where necessary to permit

[1] Source: Monthly Review of the Immigration and Naturalization Service, U. S. Department of Justice, November 1949, p. 64; and data furnished by the Service's Research, Education, and Information Division.

admission of displaced persons who are nationals of such countries," the U. S. Immigration and Naturalization Service explained.

TABLE 1.—*Admissions and departures of aliens, United States, years ending June 30, 1945–49*

Class	1945	1946	1947	1948	1949
Aliens admitted	202,366	312,190	813,597	646,576	535,599
Immigrant	38,119	108,721	147,292	170,570	188,317
Quota	11,623	29,090	70,701	92,526	113,046
Nonquota	26,496	79,626	77,591	78,044	75,271
Nonimmigrant	164,247	203,469	366,305	476,006	447,272
Aliens departed	93,362	204,353	321,422	448,214	430,089
Emigrant	7,442	18,143	22,501	20,875	24,586
Nonemigrant	85,920	186,210	300,921	427,343	405,503

Highest quotas were those of Great Britain (23,543), Poland (21,462), and Germany (12,819). The 75,271 nonquota immigrants were principally war brides and Canadian and Mexican natives. About 30 percent of the 188,317 immigrant aliens admitted during the year were about equally distributed among the four occupation groups of professional workers, clerical workers, craftsmen, and operatives.

TABLE 2.—*Distribution of immigrant aliens admitted, by occupation, year ending June 30, 1949*

Major occupation group	Immigrant aliens admitted	
	Number	Percent
All groups	188,317	100.0
Professional and semiprofessional workers	13,884	7.4
Farmers and farm managers	8,937	4.7
Proprietors, managers, officials, except farm	6,014	3.2
Clerical, sales, and kindred workers	14,797	7.8
Craftsmen, foremen, and kindred workers	13,693	7.3
Operatives and kindred workers	14,271	7.6
Domestic service workers	6,990	3.7
Protective service workers	294	.2
Service workers, except domestic and protective	3,643	1.9
Farm laborers and foremen	933	.5
Laborers, except farm	6,192	3.3
No occupation	98,669	52.4

Labor-Management Disputes in January 1950

THE PARTIAL STRIKE in bituminous-coal mining and the strike of Chrysler workers accounted for the moderate increase in strike activity during January, following the December lull.

Coal Situation

The coal situation continued to overshadow the other labor developments during the month. While there were no direct negotiations toward settlement of the protracted dispute, there was ample evidence of activity on other fronts. These included strikes by some groups of miners, congressional hearings, and impending judicial decision on an injunction requested by the General Counsel of the National Labor Relations Board.

Although the industry continued to operate on the union enforced 3-day week, stoppages of groups of miners in various fields occurred throughout the month, with strikes beginning in new areas as they ended in others. The stoppages started in Illinois and spread to pits in Pennsylvania, West Virginia, Ohio, Kentucky, Tennessee, Virginia, and Alabama. About 90,000 miners were out by mid-January, resulting in curtailed operations of the "captive" mines of major steel producers particularly. Operators charged that the stoppages were part of a union strategy to harass the industry and curtail production, with the union seeking at the same time to disclaim responsibility for these developments. Union officials contended that the stoppage was entirely spontaneous and that the men had ignored a request by John L. Lewis to resume production.

Mine operators, pointing to coal rationing by city officials in some instances, called on the President and Congress to invoke the national emergency provisions of the Labor-Management Relations Act.

The coal impasse was also under consideration in Congress. The Senate Labor Committee began hearings on January 25 on a minority resolution urging the President to apply the national emergency provisions of the Taft-Hartley Act. On the first day of the hearings, Dr. James Boyd, director of the U. S. Bureau of Mines, testified that unless "there is an immediate resumption of substantially increased coal production the national economy, health and welfare is now or soon will be imperiled."

Other Congressional developments during the month included a report of the Senate Committee on Banking and Currency charging the United Mine Workers of America with a "complete monopoly, not only over the labor supply in the coal industry, but over the management and business of the industry itself, as demonstrated by its imposition of a 3-day workweek upon that industry." Subsequently, Senator Robertson of Virginia introduced a bill which would subject

trade-unions to the provisions of the antitrust laws.

Litigation involving the dispute was also imminent, as Robert N. Denham, general counsel of the NLRB, applied for a temporary injunction to restrain union enforcement of the 3-day week and require the resumption of normal production during NLRB hearings on charges of unfair labor practices by the union. This action stems from the charges filed by the mine operators during December. The court set January 26 as a hearing date but later postponed it to February 1.

Late in the month, the possibility of a negotiated settlement between the parties was reopened with Mr. Lewis agreeing to meet with northern operators on February 1.

Chrysler Workers Strike

The strike of 89,000 Chrysler Corp. employees on January 25 followed negotations between the company and the United Automobile Workers (CIO) which had extended over a period of more than 6 months.

The issue immediately producing the rupture developed out of differences over the form and administration of $100-a-month pensions and health benefits. Immediately preceding the strike, the company proposed a 5-year contract which would guarantee pensions of $100 per month to employees with 25 years of employment at age 65, as well as additional health and insurance benefits. The union's position was that the company's proposal would involve a cost of only 3 cents per hour. Its counter proposal was a demand for a specific allotment of 10 cents per hour to the health and welfare program, or a flat 10-cent hourly wage increase. The union demand also included a provision for joint administration of the trust fund. These counter proposals were rejected by the company.

Telephone Negotiations Continue

Early in January the Bell Telephone System was warned by the Communications Workers of America (CIO) of a possible Nation-wide strike in February to win higher wages and other benefits. Negotiations with seven Bell companies have been in progress for several months and negotiations with 19 other Bell companies are scheduled to begin February 1. Union demands include wage increases, shorter apprenticeship periods, narrowing of geographical wage differentials, pension plan changes, and a shorter workweek.

The union has decided to merge negotiations involving the Southwestern Bell Telephone Co. with the proposals for the entire Bell System. Union negotiations with the New Jersey Bell Telephone Co. having failed to produce an agreement on wages and other benefits for 1,200 traffic department employees, the dispute went to the New Jersey Mediation Board. A 3-man fact-finding board began hearings on January 9.

Disputes of Railroad Workers

The National Mediation Board began mediation sessions on January 16 in an effort to break the deadlock between the Nation's railroads and the Order of Railway Conductors and the Brotherhood of Railroad Trainmen. The issues involve changes in wages and working rules. The major issue concerns a reduction in the workweek from 48 to 40 hours for 150,000 yard service employees, with no reduction in pay.

Two brief stoppages of small groups of railroad workers during the month affected substantially larger numbers of industrial workers. A brief stoppage on January 21 of 400 employees of the Monongahela Connecting Railroad, a completely owned subsidiary of Jones and Laughlin Steel Corp., brought idleness to about 17,000 workers at the Pittsburgh works of the steel company. The strike by members of the Brotherhood of Railroad Trainmen developed over the discharge of a conductor, and was ended when a compromise settlement was reached.

A 3-day strike of 400 operating employees of the South Buffalo Railway caused idleness on the part of 11,000 employees of the Bethlehem Steel Co. plant at Lackawanna, N. Y. The stoppage, called by the Brotherhood of Railroad Trainmen and the Brotherhood of Locomotive Firemen and Enginemen over wage and other demands, was settled on January 21.

Other Developments

Mayor William O'Dwyer of New York City appointed a four-man fact-finding board on January 9 to investigate and make recommenda-

tions on the dispute between the Transport Workers' Union (CIO) and the city's Board of Transportation. The issues involve changes in wages, hours, and working conditions of the 42,000 employees on the municipal transit lines.

Negotiations between the Federation of Glass, Ceramic, and Silica Sand Workers (CIO) and the Pittsburgh Plate Glass Co., and the Libbey-Owens-Ford Co., resulted in agreement on pensions on January 14. Over 18,000 workers in the flat-glass industry are covered by the agreement which provides for pensions ranging from $60 to $125 per month at age 65, based on 15 to 50 years' continuous service. The agreement also includes increased health, accident, and hospital insurance allowances.

Technical Notes

EDITOR'S NOTE.—*This series of technical notes serves the useful purpose of explaining the methodology and limitations of all major statistical series of the Bureau of Labor Statistics. Reprinted in booklet form from the Monthly Labor Review, they should offer a convenient compendium for users of Bureau materials. A standardized outline keyed by a generally uniform system of subheadings is employed as a reader-aid.*

IX. Measurement of Unit Man-Hour Requirements[1]

THE RELATIONSHIP between production and man-hours worked in manufacture has long been recognized as one of the most significant indicators of economic well-being in the United States. "Productivity," as this relationship is called, has been of growing interest owing to the general realization that in the long run, a nation's standard of living and competitive advantage in world trade depend upon continual improvement in productivity levels. The indexes of man-hours expended per unit (or the reciprocal—output per man-hour) published by the U. S. Department of Labor's Bureau of Labor Statistics, measure this relationship.

During the nineteenth and twentieth centuries, especially, there has been a rapid and steady growth in production per man-hour in the United States. This has resulted in part from continued acquisition of technical knowledge and its application to the jobs to be done. Of equal importance, continual and conscious effort has been devoted to the study of ways and means of increasing industrial efficiency, with the expenditure of fewer man-hours. The result has been a rising material standard of living and increased leisure time to enjoy it.

Productivity is also one of the major determinants of the amount of employment that accompanies a given volume of production. In the long run, man-hour output is a major link between wage movements and price levels. An increase in output per man-hour or a decrease in man-hours per unit implies a reduction in costs; the savings may appear in the form of higher wages, higher profits, lower prices, or a combination of these changes. There may be little immediate connection between wage rates and man-hour output in any particular industry, but in the long run for the economy as a whole there is a connection, because consumption is limited by production. To the individual firm, continued improvement in output per man-hour may mean survival.

The Bureau of Labor Statistics has compiled nonrecurrent reports on productivity from time to time since 1895, providing data on productivity trends for many industries. These early studies generally included detailed analyses by process, department, or operation, and dealt with the technological changes made during the years covered. In 1940, the Bureau was given responsibility for extending and maintaining an earlier program of the National Research Project of the Work Projects Administration, which involved the preparation of industry-wide measures of output per man-hour on an annual basis from readily available statistics on production, employment, and man-hours. In 1945, a new program was begun, namely, the preparation of detailed industry reports presenting annual data based on statistics of unit man-hour requirements collected directly from industry.

The Bureau's current productivity program falls into two main categories—the preparation of industry-wide measures of output per man-hour from readily available secondary-source material,[2]

[1] Prepared by George E. Sadler and Allan D. Searle in the Bureau's Branch of Productivity and Technological Development.

[2] Industry-wide indexes of output per man-hour are currently (December 1949), prepared for 19 manufacturing industries, 5 mining industries, 2 public utilities, and agriculture. Before World War II, a number of additional indexes were prepared and an index to represent manufacturing in general was compiled. During the war, the absence of suitable data necessitated a reduction in the number of industries for which indexes could be computed. Industry coverage is currently being expanded, however, to include a number of basic industries not represented since 1939.

and the compilation of detailed reports on trends in man-hour requirements based on company reports for specified products which are selected in an effort to represent the production of given industries. Data in both sets of reports are presented in the form of indexes, with 1939 as the base year or 100. The detailed studies also present product man-hour averages for specified years.[3]

Limitations of Productivity Measures

Labor is only one of the factors entering into production, and, therefore, the indexes are not in themselves complete measures of "industrial efficiency." Changes in the quantities of material consumed per unit of production or in the amount of capital consumed per unit, for example, are not measured by the indexes.

The indexes do not measure "worker efficiency" and cannot be used to determine what changes have occurred in average skill and effort of the work force *per se*. The physical quantity of production attained by a given number of man-hours worked (or conversely, the number of man-hours required per unit of physical output) depends on a large number of separate, though interrelated, influences. The type of production methods in use, the age and condition of machinery, changes in product design, changes in work methods, and the relative degree of capacity utilization, all affect efficiency. In addition, the availability of parts and components, the efficiency of the managerial and labor forces, and industrial relations directly affect output per man-hour. It is usually impossible to isolate and measure the effect of any one of these without a detailed and costly engineering study. In some of the Bureau's industry reports, an attempt is made to measure separately the effects on labor requirements of changes in capacity utilization and in volume of output.

Since the indexes are intended to represent the experience of entire industries, it cannot be assumed either that the trend of man-hours per unit for any one plant will conform with the industry-wide trend or that the individual industry or product indexes necessarily portray the trend of output per man-hour or of unit man-hour requirements in the economy as a whole. The Bureau has refrained from averaging its series on manufacturing to obtain an "all manufacturing" series. An all manufacturing series must await the addition of a considerable number of industries to the Bureau's program of productivity measurement.

In both the industry-wide indexes of output per man-hour developed from secondary source statistics and in the detailed indexes of unit labor requirements derived by the field collection technique, output is related primarily to the man-hours of wage earners or "production workers" as defined by the Bureau's Division of Employment Statistics.[4] Other groups of employees are excluded. Furthermore, no distinction is made as to level of skill, either in regard to workers or hours worked.

Industry Indexes: Secondary Source Data

Methods and Sources. Indexes of output per worker are obtained by dividing an index of production covering the output of an industry by an index of production worker employment; indexes of output per man-hour are obtained by dividing the production index by an index of production worker man-hours.[5] These indexes are based on statistics for production and employment collected by many different agencies and the scope of industrial activity covered by each index is dictated by the nature of the data available. In general, the indexes refer to the activities of industries as defined either in the Census of Manufactures, 1939, or as reclassified in 1947.[6]

Many different agencies compile the production data used in the construction of the production indexes. The Bureau of the Census of the U. S. Department of Commerce is the most important source of quantity statistics for the manufacturing industries. The Bureau of Mines compiles most

[3] Late in 1949, detailed statistics were available for 16 industries, and series for additional segments were being added. These reports show data in terms of factory direct and indirect labor. The initial reports generally cover a number of years, beginning with 1939; data are kept current through annual supplements. Indexes are published for the industry as a whole; for specified products, processes, or departments; and for groups of plants classified according to size, method of production, price line, geographic area, degree of product-diversification, or extent of improvements in factory equipment and methods. These reports contain analyses of the various conditions which have favorably or unfavorably influenced unit man-hours over the period.

[4] These include working foremen and all nonsupervisory workers associated with production operations, e. g., fabricating, processing, inspection, assembling, repair, janitorial and watchman services, product development.

[5] Beginning with the 1948 extensions, indexes for the manufacturing series will be in terms of man-hours per unit, the reciprocal of output per man-hour.

[6] The indexes are being adjusted to levels indicated by the Census of Manufactures for 1947. Changes in industry definition resulting from the adoption of the Standard Industrial Classification of the Bureau of the Budget are to be taken into account.

of the production data used in the series for mining, as well as those for cement, coke, and nonferrous metals. Other important sources include the U. S. Department of Agriculture for a number of food processing industries, the Fish and Wildlife Service of the U. S. Department of Interior, the Interstate Commerce Commission, U. S. Tariff Commission, Federal Power Commission, Federal Communication Commission, and the Bureau of Internal Revenue. Trade associations which are important sources of data include the Tanners Council, Textile Economics Bureau, National Association of Hosiery Manufacturers, National Canners Association, Millers National Federation, National Fertilizer Association, and the American Iron and Steel Institute.

The production-worker employment series is based on the published indexes (or on unpublished tabulations) of the Bureau of Labor Statistics in most instances. The indexes of man-hours are constructed from the employment series and Bureau data on average weekly hours.[7]

Mere availability of production data and of employment and man-hours statistics does not assure the construction of an accurate measure of output per man-hour. The Bureau of Labor Statistics carefully evaluates these data to assure the comparability between the production and labor figures (which are collected by different agencies) and to correct for any accumulated biases.

In many cases, it is neither necessary nor possible to include quantity statistics for all of the items produced in an industry in order to represent production trends in that industry. The Bureau's indexes of production are constructed from data on physical output of items constituting a high percentage of the total value of the products of the industry. Coverage varies between 60 and 100 percent depending on the industry; it exceeds 80 percent for three-fourths of the currently published series and those proposed for compilation in the near future. Each year, before bringing these statistics up to date, the Bureau attempts to determine what new products should be added and to ascertain whether the products included continue to represent production trends in the industry.

[7] The man-hours figures represent total production worker man-hours paid for including vacation hours, waiting time, call-in time, and other hours paid for but not actually worked.

In computing the indexes, it has not generally been possible to adjust for quality changes, but they have been taken into account occasionally by assignment of separate weights to the products affected. For example, in the footwear index, men's military work shoes and civilian work shoes were placed in separate product classes during wartime and were weighted separately (giving a higher weight to the military shoes).

In some industries, changes in the nature of the product during the war period made accurate measurement of production extremely difficult. For industries which changed the nature of output completely—for example, automobiles and, in large part, agricultural machinery—no indexes were prepared for the war period. Current plans call for the eventual construction of indexes for a number of these industries for 1939 and 1947.

Whenever problems of measurement are known to exist, changes in the nature of output are discussed with qualified persons in the industry affected. If possible, product classes are broken down into relatively homogeneous categories, and an appropriate weight is assigned to each. Even when a rough production indicator exists, the Bureau does not prepare an index of output per man-hour unless some assurance is given that the production statistics adequately reflect the changes in the production composite. For instance, data are available on the number of board feet of lumber produced each year. However, an index of production and of output per man-hour based simply on the number of board feet of lumber sawed may be influenced by a shift in manufacture from hardwood to softwood or from small dimensional lumber to large timbers, or vice versa. More man-hours per board foot are required for smaller-dimension lumber than for large timbers, and a rough production indicator in terms of board feet alone is insufficient for computation of a productivity index. Pending development of more suitable statistics than those currently available, the Bureau has discontinued the publication of indexes for this industry. The same action has been taken for other industries that are characterized by such production shifts.

Production and labor data also must be comparable and must assure a reliable indicator of general productivity trends. Labor and production data may not be strictly comparable for two reasons: (1) The production data may not include the

entire output of the industry; and (2) the production figures include some quantities made as secondary products by establishments classified in other industries.[8]

Many of the industries for which indexes are presented are well defined and comparability presents no problem—bituminous-coal mining and beet sugar, for example. In others, quantity statistics for some items are unavailable (minor products or items normally produced by establishments in other industries) and a part of their reported output is made in industries other than those for which the particular indexes are prepared. The resulting output per man-hour index implies the assumption, then, that (1) the proportion of secondary products has remained unchanged, and (2) the proportion of the items included in the index but made outside the industry has remained unchanged, or that (3) any changes made in (1) and (2) offset each other. Such assumptions are never accepted by the Bureau unchecked; an attempt is always made to obtain either statistics or at least descriptive information to check the assumptions. Both the Census of Manufactures for 1939 and 1947 provide valuable data for evaluating the assumptions and for making necessary adjustments in the manufacturing series. When the problem of comparability cannot be solved within reasonable limits, no index is published.

Calculation Procedures. In order to establish the relation between production and man-hours expended, it might seem to be simply a matter of choice whether a production index is divided by a man-hours index to obtain an index of output per man-hour, or whether the man-hours series is divided by the production measure to obtain man-hours per unit. Either result has practical value as a measure, one being the reciprocal of the other. In a strict sense, however, it is necessary to establish an index of unit man-hour requirements. For example, in 1939 the cigar and cigarette industries produced 5.3 billion cigars and 181 billion cigarettes with the expenditure of 133 million man-hours of labor. Suppose the question is asked: How many man-hours would have been required in 1945 to produce the same number of cigars and cigarettes? Computation shows that the total is in the neighborhood of 104 million man-hours. Dividing 104 by 133 results in an index of unit man-hour requirements of 78 in 1945 (1939=100). The corresponding index of output per man-hour is 128. Suppose the question is rephrased: How many cigars and cigarettes could have been produced in 1945 with an expenditure of 133 million man-hours (the number actually worked in 1939)? No single figure answers this question, for a combination of varying numbers of cigars and cigarettes would fulfill the requirements. The answer to the first question can be expressed as an index number of unit man-hour requirements; the answer to the second question cannot.

The indexes of unit man-hour requirements for individual industries are based on the formula: $L_i = \frac{\Sigma q_i r_i}{\Sigma q_i r_o}$ in which q_i represents the production of each item in the given year and r_o and r_1 represent the number of man-hours required for these items in the base year and given year, respectively.

The numerator shows the number of man-hours actually worked in year "i" for all the items considered. The denominator shows the number of man-hours which would have been required in the base year for the identical production.

The index of unit man-hour requirements can also be expressed as the quotient of an index of man-hours and an index of production, and it is in this manner that the series are actually constructed. Thus:

$$L_i = \frac{\Sigma q_i r_i}{\Sigma q_i r_o} = \frac{\Sigma q_i r_i}{\Sigma q_o r_o} \div \frac{\Sigma r_o q_i}{\Sigma r_o q_o}$$

The first term on the right-hand side of the equation is an index of total man-hours. The second term is a production index in which the quantities of the separate products are weighted by man-hours per unit in the base year.

For many industries, no information is available on man-hours per unit for the separate products for any period of time. In such cases, weights other than man-hours per unit are employed in constructing the output series, and the Bureau attempts to test whether the alternative weights are proportional to unit labor requirements. In the absence of data on unit

[8] Labor data, reported by establishment, include total production-worker employment and man-hours of establishments in which the major activity falls within the industry definition. The production statistics, on the other hand, are on a commodity basis and usually include the entire output of the items reported.

man-hour requirements in the base year, labor costs per unit provide fairly good approximations. Value added per unit—i. e., the value per unit less the cost of materials per unit—usually has a rather high labor content and hence has a relationship to man-hours per unit. Unit value weights are used when data on labor cost or value added are not available.[9] In practice, similar results are generally obtained with any of these weighting systems.

The manufacturing industries included in the Bureau's existing program and those being initiated in late 1949 were being adjusted to bench marks recently made available by the Census of Manufactures, 1947. The method of adjustment follows:

(1) A production index based on Census data is prepared for the year 1947 (1939=100) in the same manner that the previously published unadjusted production index was prepared.

(2) An employment index for 1947 is prepared from Census production worker totals in 1939 and 1947.

(3) The production and employment series previously published are adjusted by spreading the percentage of the 1947 adjusted to unadjusted series over the years 1939–47.

(4) The Bureau's series of average weekly hours is used in conjunction with the adjusted employment index to obtain the index of man-hours.

Such adjustments do much to eliminate any problems of comparability which might arise as a result of deriving the production and employment data from separate sources.

The Bureau plans to add a number of manufacturing industries to its program during 1950. Special attention is to be given to increasing the representation of industry groups for which coverage is relatively low.

Industry Reports: Field-Collected Data

Survey Methods and Sources. Field-collected data are necessary to prepare comprehensive industry reports for industries of primary importance in the manufacturing economy, and for those for which no unit man-hour measures can be prepared from published data. Extensive developmental research is necessary for each proposed study to arrive at the appropriate basis for man-hour reporting (by product, process, or department).

When possible, the industry's total output is covered. If this is too costly, a sample of products is selected to provide a typical cross section of the industry's output; all of the hundreds of products in an industry need not be covered to provide satisfactory measures of unit man-hour trends. Physical specifications are then developed to limit product man-hour reporting to generally comparable models, which experts in the industry judge to be largest in volume and most representative of the entire output.[10] In addition to the detailed product specifications applied, reported items are further identified in exact terms. Bureau representatives who arrange for man-hour reporting obtain copies of company catalogs or other literature describing in detail the physical and operating specifications of reported product models.

Man-hour and production data are obtained annually for identical models as long as they are produced in volume. When a given product model is discontinued, the Bureau's representatives must arrange for substitution of another product made in volume.

Substitutions are of two types: (1) Substitution of another model which is essentially similar in characteristics, and is adequately described by the same specification; and (2) substitution of an article serving the same purpose, but not of the same quality or design, and described by a new specification.

In the first type, any difference in man-hours per unit (almost invariably negligible) between the old and the substituted model is shown as a unit man-hour change in the index calculation. For example, if one model of a roller bearing,

[9] Indexes of unit man-hour requirements prepared by use of a production index constructed with base-year unit-value weights show the change in man-hours per unit per dollar of total value, in terms of base-year value per unit for each item. They reflect the effect of any shifts from products with high man-hours per dollar of total value, or vice versa, including the effect of shifts from products with high materials costs per man-hour to those with low material costs per man-hour or vice versa.

[10] Typical specifications for three items follow:

(a) Refrigerator, Electric, Domestic—Exterior finish, lacquer (not porcelain); interior, porcelain; storage capacity, 6-7.2 cu. ft.; shelf area, 11-15 sq. ft.; 3-5 ice trays, 6-12.6 lbs. of ice; compressor, hermetically sealed.

(b) Ball Bearing—Single-row ball bearing, industrial type, SAE #208.

(c) Turret Lathe—For bar stock, arranged for motor drive; 2½" round stock capacity; 34"-42" turning length; 12" scroll stock capacity; 9-12 spindle speeds, 6-18 cross feeds, ranging .002–070 to .003–103; 6-18 longitudinal feeds ranging .002–.103 to .004–49; 5-10 h. p.; 1070-1800 rpm motor recommended; 4,500-6,750 lbs. net weight.

identified by a given catalog number, is no longer available, and another model, differing only in minute detail, is substituted, any difference in man-hours is allowed to affect the level of the index. In the second type of substitution, the level of the index is not affected, for the new model is introduced by linking. Any increase or decrease in man-hours for the new product in the year of substitution is therefore not reflected in the annual percent of change on which the index is based. An example of this type of substitution is the replacement of a turret lathe with manual controls, adapted only for high-speed steel cutting tools, by a turret lathe of similar type and capacity with automatic controls, and adapted for the use of carbide-tipped cutters. Substitute specifications are always made to adhere as closely as possible to those supplanted, i. e., with respect to end-use applications of the products, materials, design, and unit man-hour standards.

In some cases, changes take place in the scope of operations performed in a given establishment. Either (1) the man-hour data are adjusted to correct for these changes, or (2) the company statistics are not used for the affected years unless information is available as a basis for appropriate adjustments.

Reports of production and man-hours are obtained directly from manufacturing firms. An establishment list is developed with the advice of experts in the industry. In a few industries, if the producer universe is large and a few firms do not dominate output, scientific sampling procedures are employed. In most industries, however, the Bureau attempts to establish reporting from all of the major firms in the industry, and from a balanced sample of the medium-sized and small firms. Consideration is given to quality of product, production methods, and geographic location.

Survey Procedures. Field representatives of the Bureau visit each of the firms in the sample to arrange for reporting of company unit man-hour requirements.[11] At each plant, the representative explains the program and discusses the company's cost-accounting system. He agrees with the company accounting officials upon the method to be used in deriving unit man-hour data from the company records. At the plant, the agent lists detailed information on the company's classification of labor accounts, scope of operations, parts purchased, and ratio of the various indirect labor accounts to total direct man-hours. He also obtains information on the extent and type of hours paid for but not worked;[12] and the basis for reporting of capacity data.

The Bureau schedule (here reproduced) embodying the company's statements of production and man-hour figures are forwarded to the Bureau of Labor Statistics in Washington, where the data are processed.[13] In turn, a copy of the schedule is forwarded to the agent, together with any comments or questions from the Washington analyst regarding the reported data.

Bureau field agents then revisit the reporting firms and discuss the data with the accounting, production, engineering, and design experts of the companies. In this way, they obtain information on all of the factors which have affected each company's man-hour requirements—the effect of changes in factory equipment and work methods, changes in the labor force, the relative availability of materials and parts, production and employment trends, the utilization of plant capacity, and similar factors. Through discussions with company design engineers, the Bureau representatives analyze in specific detail the relationship between the reported man-hours for each firm and the specifications of the products. When possible, relative standard performance records are obtained in instances where design has changed.

Production and man-hour data from schedules prepared by the reporting companies are utilized in preparing summary statistics for the industry. The information embodied in the agent's preliminary and final reports provides a basis for classifying company data and for the interpretative and analytical text which accompanies the statistical analysis for each industry.

Calculation Procedures. Preparation of the unit man-hour indexes involves the following general calculations:

[11] After reporting is firmly established in each industry, annual unit man-hour data for succeeding years in most industries are reported by the participating firms on schedules mailed to them by the Bureau. This eliminates the necessity for an additional visit by Bureau field representatives.

[12] The basic instructions are to exclude such time from the man-hour reports. If the company cannot exclude such time, the agent obtains estimates as to the relative amount of time included on the report.

[13] In a limited number of industries (for example, men's dress shirts) and in a few plants in almost all industries, Bureau representatives compile the man-hour data from company production and cost, pay-roll, or time records.

(1) Computation of product unit man-hour requirements from company schedules, for each year reported.[14]

(2) Multiplication of unit man-hours for each year by a base-period weight reflecting each company's relative output; this yields annual unit man-hour aggregates.

(3) Summation of unit man-hour aggregates, all company reports for each product available for consecutive years of comparison.

(4) Computation of year-to-year percent of change in average man-hours per unit, each product.

(5) Computation of annual indexes by applying percent of change to previous year's index (starting with base year as 100).

(6) Computation of industry indexes (all products combined) by deriving weighted average of the individual product indexes. Product weights reflect the relative importance of each product in the industry's output pattern.

(7) Indexes of trends in unit man-hours for groups of firms classified according to size, production method, or other characteristics (without regard to product) are computed by averaging the indexes of trends derived from individual company product reports for all firms within each category.

Two basic techniques are used in computing the product indexes—either the "link-relative" or the "base-year relative" method. If continuous data are available for all entries in the index, the two methods yield identical results. In some instances, however, breaks in sample may cause the results of the two methods to differ markedly. Characteristics of the particular product sample determine the method to be used in the calculation of unit man-hour indexes for individual products. The results are checked against those for the years of references in which data are available for all reporting companies (the strongest years).

The link-relative method is most generally used. For each comparison, data are used which cover all firms reporting for the previous and current year. The basic formula for this method follows:

$$i_n = \frac{\Sigma q_x r_n}{\Sigma q_x r_{n-1}} \cdot i_{n-1}$$

where the q_x's are the production weights assigned to each company's product report,[15] the r's are the reported unit man-hour requirements in the year of reference and in the preceding year, and i_{n-1} is the product index for the preceding year.

The formula for the base-year relative method, used less frequently, is essentially that of Laspeyres. It is expressed as

$$i_1 = \frac{\Sigma q_x r_n}{\Sigma q_x r_o}$$

where the q_x's are again the production weights for each firm's product report and the r's are unit man-hour requirements in the year of reference and in the base year. Data for a given year, of course, are totaled only for those firms which are also covered in the base year.

In computing the indexes for groups of products or for all products combined, the weight assigned to each product is an expression of its relative importance in the period for which most recent production statistics are available. The weighting period may be 1 year, or an average of 2 or more years. In most industries, it relates to postwar years (e. g., 1945–47; 1946–48; or 1947, the Census year). In each instance, the weight assigned is that which yields the most accurate approximation of total factory man-hours expended during the weighting period in the production of all models of each product. In some industries, actual man-hours weights are used. In others, the best available weights are value added by manufacture or value of product.

The formula covering the procedure for computing the all-products (industry) index is similar to that shown for the base-year relative method of product index computation. It is

$$I_n = \frac{\Sigma w_o i_n}{\Sigma w_o}$$

where w_o is equivalent to $\Sigma q_o r_o$, the man-hours expended by the industry in the manufacture of a particular product, or the nearest approximation thereto; and i_n's are the product indexes in the current year.

Annual average man-hour requirements for each product are computed by adding all units produced and by combining all man-hours expended

[14] If reporting is on a process or department basis, process or departmental man-hours are substituted for product man-hours in computations described.

[15] In most instances, they consist of average annual production for 6 to 10 years. Average production is preferable to the volume in any 1 year, because any one firm's output may be either unusually high or unusually low in any 1 year selected as a base.

for such production. The sum of the man-hours is then divided by the sum of the production. The formula for this computation is

$$\frac{\Sigma q_x r_x}{\Sigma q_x}$$

where q_x is the number of units produced by each company in the given year, and r_x is the unit man-hour requirement.[18]

In all reports in this series, the Bureau provides statistical analyses other than the indexes of unit man-hour trends and the unit man-hour averages. Variations are shown in the man-hour trends from year to year for the individual reporting firms. The average ratio of factory indirect (overhead) labor to total factory labor is also computed for each industry, on the basis of the ratios reported by the individual respondents.

Whenever possible, the Bureau analyzes the quantitative relationship between man-hours per unit and factors such as plant size, production volume, price line, quality of product, or utilization of plant capacity. These comparisons are in some instances developed as rank correlations. However, scattergrams are usually prepared, and curves, least squares regression lines, or parabola are computed and fitted to the scattergrams to indicate the relationship.

[18] Note that if the q's for all firms are assigned a weight of "1," the result is the so-called unweighted average. Such averages have been published in some reports (for example, Men's Dress Shirts), when series were presented for firms classified according to plant size, price line, production method, etc. In such cases, an average not affected by production volume was desired.

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UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

SUBMIT IN DUPLICATE

CODE

Ind.	Co.	Est.	Prod.

Strictly Confidential

REPORT OF UNIT MAN-HOUR REQUIREMENTS

1. Name of Company _____
   Address _____
   Plant Name _____
   Plant Address _____
2. Specifications for product to be reported: _____
   (Items 3 to 7 to be completed by Company. See instructions.)
3. List firm catalog model numbers or describe product item(s) which meet the above specifications and are covered by this report: _____

		1939	1940	1941	1945	1946	1947	1948
4.	No. of units manufactured during calendar year							
5.	Direct man-hours*							
	Indirect man-hours*							

*For 5 above, indicate basis of calculation below:

(Check one)
Man-hours per unit . . . . . ☐
Aggregate man-hours . . . . . ☐

(Check one)
Man-hours are shown for full year's production . . . . . ☐
Man-hours are shown for representative production period . . . . . ☐

(a) If man-hours are shown for representative production runs or a portion of the production of each year, indicate the number of units manufactured during the production periods selected:
1939 _____ 1940 _____ 1941 _____ 1945 _____ 1946 _____ 1947 _____ 1948 _____

6. Give the number of units constituting practical plant capacity for *either:*
(a) models reported above or (b) all related models

	1939	1940	1941	1945	1946	1947	1948
Units constituting capacity							
No. of units of related models manufactured							

7. Name of Official _____
   Title _____ Date _____

The data submitted on this schedule will be seen only by sworn employees of the Bureau of Labor Statistics, and will not be available to anyone else without your written permission. The data will not be released in any form which permits identification with any specific company.
When this report is completed, please submit it, together with catalog literature identifying models reported, to Commissioner of Labor Statistics, Washington 25, D. C.

(BLS 49-2378)

X. Estimating Expenditures for New Construction

THE ESTIMATES of expenditures or new construction prepared jointly by the Bureau of Labor Statistics and the Office of D mestic Commerce are widely used by private business : nalysts and government economists as measures of construction activity. These estimates represent the monetary value of the construction work performed within the continental United States during the stated periods of time. This monetary value is equivalent to the cost of the materials put in place or otherwise consumed, the wages of the workers who placed the materials, and appropriate charges to the work for overhead and profit.

Annual estimates are available beginning with 1915, and monthly figures from January 1939. This series is an extension of yearly estimates developed in the late 1930's in the Bureau of Foreign and Domestic Commerce and presented in Construction Activity in the United States, 1915–37 (out of print). For some years after the publication of the original series, several agencies prepared a number of independent, and often conflicting, estimates projecting it. In 1945, the Bureau of the Budget, through its Division of Statistical Standards, assigned the preparation of an official Government estimate to the Bureau of Labor Statistics and the Bureau of Foreign and Domestic Commerce jointly, and delineated the responsibilities of each agency in the preparation of the figures.

Primary responsibility for estimating private residential construction and all public construction was given to the Bureau of Labor Statistics, and for estimating private nonresidential building, farm construction, and privately owned public-utilities construction to the Bureau of Foreign and Domestic Commerce. Individual responsibilities are for the work directly involved in developing sources and processing the data. The two agencies take joint responsibility for the overall validity of the estimates, and the work of either agency in preparing the series is at all times subject to the review of the other.

[1] By Roland V. Murray in the Bureau's Division of Construction Statistics and by Bruce M. Fowler in the Construction Division of the Office of Domestic Commerce, U. S. Department of Commerce.

In these estimates, "new construction" includes the production of all fixed works and structures, whether by contract or force-account.[2] Major additions and alterations are included, except for residential building,[3] but maintenance and minor repair work and, insofar as possible, work relief projects are excluded.[4] The estimates cover buildings; other structures, such as dams, levees, and bridges; and nonstructural works such as airfields, highways, canals, and navigation channels. They include the installed value of equipment generally considered an integral part of a structure and commonly included in the contract price, such as plumbing and heating equipment and elevators. They exclude separable equipment, such as production machinery, power-generating equipment, and furnishings. Excluded also are the value of raw land and of such preconstruction costs as architectural and engineering fees and some types of land improvements.[5]

Several types of activity which have some of the characteristics of construction are excluded because they are primarily industrial or agricultural operations. Chief of these are (1) oil and natural gas well drilling; (2) mining operations (except for the construction of mine buildings above ground); (3) shipbuilding; and (4) farm work which is an integral part of farm operations, such as terracing and individual irrigation ditches.

A few types of work properly classifiable as construction under the general definition are also omitted. These may be grouped into two classes, according to the reason for their exclusion: (1) those for which sufficient information has not yet been developed, i. e., tourist courts and cabins, dormitories (except dormitories financed with Federal funds), major additions to and alterations of private residential buildings, privately owned water and sewer systems, and some public and

[2] Force-account work is done, not through a contractor, but directly by a business or government agency using a separate work force to perform nonmaintenance construction on the agency's own properties.

[3] It was planned to include major additions and alterations on residential building in the expenditures estimates upon revision of the series in the spring of 1950.

[4] The Office of Domestic Commerce prepares annual estimates of total construction activity by combining the new construction activity estimates with separate estimates of (1) work relief and (2) maintenance and repair. This series is available by years from 1915. The same office also maintains a monthly series, beginning with January 1939, showing seasonally adjusted new construction activity, and a series beginning with 1939 of new construction activity by States. (See also footnote 6.)

[5] It was planned to include architectural and engineering fees and all land improvement costs in the expenditures estimates upon revision of the series in the spring of 1950.

privately owned toll roads and bridges; and (2) those activities which for security reasons have not been included in the estimates, chiefly the classified projects of the Department of Defense and all construction by the Atomic Energy Commission. Data for types of work in the first group are to be introduced into the series as rapidly as sources of expenditures data are developed, but these must provide both current and historical information in order to insure year-to-year comparability of the series. Data for the second group are to be introduced only as projects are declassified and information is made available. Outlays for construction by the Atomic Energy Commission were scheduled for inclusion in the estimates by the spring of 1950.

In addition, two items, known to be relatively unimportant, (1) public park and playground construction and (2) non-Federal conservation and development work, are not represented in the figures before 1946. They have been included under "All other public" beginning with January 1946.

The tabulation shown lists the types of new construction for which expenditures estimates are regularly published. Somewhat greater detail is available on an annual than on a monthly basis.

Type of construction	Period for which available: Annually	Monthly
Total new construction	x	x
Private construction	x	x
Residential building (nonfarm)	x	x
Nonresidential building (nonfarm)	x	x
Industrial	x	x
Commercial	x	x
Warehouse, office, and loft buildings	x	x
Stores, restaurants, and garages	x	x
Other nonresidential building	x	x
Religious	x	x
Educational	x	x
Social and recreational	x	x
Hospital and institutional	x	x
Remaining types	x	x
Hotel	x	-------
Miscellaneous	x	-------
Farm construction	x	x
Residential	x	-------
Nonresidential	x	-------
Public utilities	x	x
Railroad	x	x
Telephone and telegraph	x	x
Other public utilities	x	x
Local transit	x	-------
Petroleum pipe line	x	-------
Electric light and power	x	-------
Gas	x	-------
Public construction	x	x
Residential building	x	x
Nonresidential building	x	x
Educational	x	x
Hospital and institutional	x	x
All other nonresidential	x	x
Industrial	x	-------
Commercial	x	-------
Public administration	x	-------
Social and recreational	x	-------
Miscellaneous	x	-------
Military and naval facilities	x	x
Highway	x	x
State	x	-------
County	x	-------
Municipal	x	-------
Federal	x	-------
Sewer and water	x	x
Sewage disposal	x	-------
Water supply	x	-------
Miscellaneous public service enterprises	x	x
Conservation and development	x	x
Bureau of Reclamation	x	-------
Army Engineers	x	-------
Tennessee Valley Authority	x	-------
Other	x	-------
All other public	x	x

Limitations of the Series

As the following sections show, the methods by which these estimates are compiled result in measures in terms of dollars of a purchasing power current during the period of reference. The figures therefore cannot be used as indicators of the physical volume of construction placed without extensive adjustments for differences in price levels and wage rates, technological changes, and other relevant factors.[6]

The expenditures estimates are distinct from contract-award or building-permit data. The latter indicate the value of construction sched-

[6] The Office of Domestic Commerce estimates changes in the physical volume of construction placed by expressing current estimates in 1939 prices. This is done by deflating the estimate for each class of construction by an appropriate construction cost index. This series is available by years from 1915 and by months from January 1939.

uled for early start, and are therefore useful in forecasting construction activity. The expenditures estimates, on the other hand, indicate current activity and are therefore particularly suitable for use in making comparison with related concurrent data, such as those for employment and delivery of material.

The degree of error in the estimates of expenditures cannot be measured statistically and, because of the varied basic sources and the different characteristics of the types of construction represented, the accuracy of the figures varies considerably between types. Thus, for example, the estimates for farm construction are much less reliable than those for public utilities. In general, the larger the coverage of the expenditures the more reliable are the figures. For instance, annual estimates are better than monthly, and the total for any period is more nearly accurate than the data for any of the individual types of work. Relatively small month-to-month changes should be used with caution because most monthly data are based on normal construction patterns, and not on actual observed progress (see p. 180). The year-to-year changes in the estimates for total and major types of construction are correct as to direction and are substantially correct in extent.

The figures by type of construction are not adapted for use in making exceedingly fine comparisons, primarily because of some unavoidable inconsistencies in classification. For example, regardless of type of work (whether building construction, road work, etc.), all construction by privately owned public utilities is included under "Public utilities," all construction for the military by the Department of Defense is represented in "Military and naval facilities," and all construction by the civil units of the Army Engineers, the Bureau of Reclamation, and other Federal conservation agencies is included in "Conservation and development."

Sources and General Estimating Methods

Ideally, construction expenditures information would be based upon monthly reports from each construction project supplying a cost accounting figure which combines the wages of the workers on the project, the cost of the materials which they placed, and appropriate charges for overhead and profit. If this were feasible, the collection cost would greatly exceed the Federal resources currently made available for these estimates. Therefore, the estimates are made up of data from a wide variety of secondary sources as well as from primary source material originally devised to serve other purposes.

Few of these sources are static. In fact, the outstanding characteristic of the list of such sources is its constant change in content. This results from: the continual search for more complete, accurate, and timely information than previously available; the undertaking and completion of public works programs; and the changes in operating and reporting requirements of Federal construction and regulatory agencies.

Three general methods are used in constructing the estimates from the various source materials. In the order of preferred methodology, they consist of (1) summarizing physical observations of work underway, (2) summarizing financial data on additions to plant, and (3) converting data on work started to estimates of work put in place.

(1) The summaries made from actual observations of progress on individual construction projects are based primarily on the operating reports of the Federal agencies supervising the construction of public works, such as veterans' hospitals, flood-control dams, irrigation canals, and the like. In designing such reports, the operating agency and the Division of Statistical Standards of the Bureau of the Budget consider the Bureau of Labor Statistics' needs for expenditures data. Many non-Federal public construction agencies make similar reports, but the systematic collection and use of them is not considered feasible by the Bureau. This type of report is therefore, with the exception of the New York City Housing Authority, used only with respect to Federal construction for which it is a readily available and accurate source of information. It usually reflects the observation, or in some cases the actual measurement by a Federal engineer of the status of a construction job at uniform intervals (primarily to determine the payments due to the contractor for work accomplished during the interval). Tabulations of data for all of the individual jobs in a given program are made either by the construction agency or by the Bureau of Labor Statistics.

(2) The summaries of financial data are based

on the accounting records of private companies such as privately owned public utilities, and of public agencies which are required, in the public interest, to maintain financial records. The figures reflect disbursements for construction, and are adjusted roughly, whenever possible, for deferred charges, such as for large purchases of materials to be used in a later period. In a few instances, special summary tabulations must be prepared from detailed records. These are made by the trade association involved or by the two Government agencies responsible for the statistics. Generally, however, suitable basic data are in published form. For example, some are summarized by trade associations for presentation in yearbooks or other periodical reports to the public and certain figures are summarized by Government regulatory agencies for publication in their annual reports.

A special case is the table on appropriations and expenditures for civil public works in the annual Budget of the United States, made available at the time of the President's annual budget message to Congress. It consists of a tabulation of checks issued against construction appropriations. After adjustment to eliminate survey and planning projects, operation, maintenance, and other nonconstruction items, these data form the basis of the estimates for construction by a few Federal agencies from which monthly data are not obtained for various reasons.

(3) Conversion of work started to estimates of work put in place is the most important of the three methods of deriving construction expenditures estimates, from the standpoint of the dollar volume of the expenditures categories for which it is used. The value of work started each month is spread over a period of time according to a predetermined pattern. This pattern is the probable percentage of the total cost of construction

Sources used in estimating expenditures for new construction, by ownership, type of construction, and source of public funds

Ownership and type of construction	Source of public funds	Source of basic data
PRIVATE		
Residential building (nonfarm)		BLS building permit reports and field studies.
Nonresidential building (nonfarm): all types		F. W. Dodge contract award figures.
Farm construction: all types		Bureau of Agricultural Economics.
Public utilities:		
Railroads		Interstate Commerce Commission.[1]
		Association of American Railroads.
Telephone and telegraph		American Telephone and Telegraph Co.[2]
		Western Union Telegraph Co.
Other public utilities:		
Local transit		American Transit Association.
Petroleum pipe line		Interstate Commerce Commission.
Electric light and power		Federal Power Commission.
Gas		American Gas Association.
PUBLIC		
Residential building	Federal	Public Housing Administration.[3]
	Non-Federal	Local housing authorities.
Nonresidential building:		
Educational	do	General Services Administration.[4]
Hospital and institutional	Federal	Office of Chief of Engineers.
	do	Public Health Service.[5]
	do	Veterans Administration.
	Non-Federal	General Services Administration.[4]
	do	Public Health Service.[5]
All other nonresidential	Federal	Federal agency supervising construction.[6]
	do	Federal agency awarding contract.[7]
	do	Budget of United States.
	Non-Federal	General Services Administration.[4]
Military and naval facilities	Federal	Office of Chief of Engineers.
	do	Bureau of Yards and Docks.
Highways	do	Bureau of Public Roads.
	Non-Federal	Do.
Sewer and water	do	General Services Administration.[4]
Miscellaneous public service enterprises	do	Do.[4]
Conservation and development	Federal	Bureau of Reclamation.
	do	Office of Chief of Engineers.
	do	Tennessee Valley Authority.
	do	Budget of the United States.
All other public	do	Civil Aeronautics Administration.
	do	Budget of the United States.
	Non-Federal	General Services Administration.[4]

[1] Publishes data on class I railroads on Form IBS, monthly.
[2] Summarizes reports from member companies of the Bell System and adjusts the results to cover independent companies.
[3] No Federal funds were being expended at time of writing.
[4] Office of Economic Research of GSA, using as source, F. W. Dodge and other contract awards data.
[5] Hospital Facilities Division.
[6] Covers projects of the Public Buildings Administration, certain other Federal agencies, and United Nations Headquarters in New York City.
[7] For projects such as those by National Advisory Committee for Aeronautics.

which will be performed in each month of the known or estimated duration of the job. On a given type of construction, therefore, the estimated expenditures for any month are the sum of the estimated expenditures during that month on all projects estimated as under way, according to the length of the expenditures pattern.

Obviously the use of these three different methods of estimating expenditures raises problems of comparability, both as to timing and content. Timing is a problem only in month-to-month comparisons. Over longer periods, the three methods should give similar results. Comparability in coverage is a more serious problem. Therefore, all source material is carefully examined and adjustments are made in it, or in the expenditures estimated from it, to insure that the results conform with the general concepts previously outlined.

The first and third of these three general estimating methods yield monthly results directly. The second, financial data, are usually available only on an annual basis. Therefore, the monthly figures are obtained by projecting the levels established for the previous year, month by month, on the basis of the known movements of a related series. At the year's end, an adjustment is made to the new bench mark. At the same time, all components of the estimates are reexamined for necessary adjustment, such as to include the year-end revisions of housing data. These adjustments may include the addition of entire series, to reduce the noncovered field previously mentioned.

The preceding tabulation shows, for each type of construction, the basic source of data. These basic series are adjusted in varying degrees by the agencies responsible for the construction expenditures series.

Adjustment Procedures

Private Construction. The adjustment procedures for the private construction segment are as follows.

For residential building, the monthly reports to the Bureau of Labor Statistics on the value of residential building authorized by local building permits are adjusted to reflect the construction cost of new permanent nonfarm dwelling units started [7] in all urban places and in rural permit-issuing places. Separate inflating factors are applied to the urban and rural segments to compensate for the understatement of cost inherent in permit valuation. These are revised periodically on the basis of information obtained from field surveys in which the permit valuation and the construction cost reported by builders and contractors are compared for a large sample of projects.

Construction cost of units started in rural non-permit-issuing places is based on monthly field studies. Estimated construction costs are secured from builders and contractors for a large number of dwelling units in sample counties throughout the country. From these an average construction cost for all units started in non-permit-issuing rural areas is derived.

The urban and rural segments are then combined to give a total estimated construction cost of the dwelling units started in the given period.

An expenditure pattern is then applied to this construction cost figure to estimate the amount of work put in place in the months following start of construction. This pattern is derived from: (1) special studies of construction time to obtain a distribution of completions in the month of start, in the following month, and so on; and (2) studies of the progress on actual jobs to develop typical patterns for jobs of 2-months duration, 3-months duration and so on. The final expediture pattern is an average of these patterns for different lengths of construction time weighted by the proportion of the units started which are completed in these various lengths of time.

Nonresidential buildings are covered in separate estimates made for each of the following types of new private nonresidential buildings: (1) industrial; (2) warehouse, office, and loft buildings; (3) stores, restaurants, and garages; (4) religious; (5) educational; (6) social and recreational; (7) hospital and institutional; (8) hotels; and (9) miscellaneous.

Estimates of construction activity are derived by the following six adjustments of the figures reported monthly by the F. W. Dodge Corp.[8]

(1) Cancellations: A project reported by Dodge may be canceled later or indefinitely postponed.

[7] *See also* Estimating National Housing Volume. Monthly Labor Review, October 1949 (p. 410).

[8] Dodge figures apply only to the 37 States east of the Rocky Mountains and to the District of Columbia. They are prepared monthly by the firm's Statistical and Research Division, as a byproduct of its daily news reporting service. Reports are obtained by a staff of individuals who interview owners, architects, engineers, contractors, financial institutions, real estate brokers, and others able to supply reliable information on the awarding of construction contracts.

In such a contingency, the Dodge reports include the correction in the month in which the cancellation is ascertained. Thus, the contract series may be overstated in one month and understated in a subsequent month. Therefore, the Office of Domestic Commerce applies the adjustment to the figure for the month in which the original entry appeared.

(2) Undercoverage in 37 Eastern States: An adjustment is made to allow for projects not included in the Dodge reports, The omissions are chiefly smaller projects and work done by a firm's own force. The degree of adjustment has varied both over time and between the various types of construction.

(3) Allowance for 11 Western States: Since the Dodge reports cover only the 37 Eastern States, they are adjusted to reflect contract awards in the entire continental United States by applying the ratio of the valuation of urban building authorized by permits in the 11 Western States to the total valuation of urban building authorized in the United States as a whole for each type of construction. This adjustment varies from month to month and from one type of construction to another.

(4) Translation of contract awards to work started: The Dodge reports represent contracts awarded during the month and due to be started soon. The assumption is made that construction on contracts awarded during a given month is started during the following month.

(5) Activity timing: To convert the total value of work started each month into estimates of the value of work put in place, several activity patterns have been developed for each type of building, taking into account the average size of project and the season in which work is begun. These patterns applied to the work started series yield the estimated value of work put in place each month.

(6) Duplication of public utility buildings: Offices, warehouses, and other structures built by public utilities are included in the total value of construction reported by the various utilities and are also included in the Dodge reports for nonresidential buildings. To eliminate this duplication, estimates for buildings constructed by public utilities are subtracted from the expenditures estimates for warehouse, office, and loft buildings.

For farm construction, estimates are currently made by the Bureau of Agricultural Economics annually.[9] They are prepared separately for "operators' dwellings" and "service buildings" which, in the expenditures estimates, are designated as "residential" and "nonresidential" farm buildings. Both new construction and maintenance are included. Figures for new construction alone are derived on the basis of separate estimates by the Forest Service of farm consumption of lumber for new construction and for maintenance.

The lumber consumption estimates are prepared quarterly and are, therefore, used to project the estimates of farm construction expenditures beyond the latest direct estimates of the Bureau of Agricultural Economics.

In the public utilities group, adjustments are made for each of five types of public utilities:

(1) Railroads: An annual adjustment to a bench mark is required with respect to the ICC monthly data on class I railroads, because coverage for class I railroads is not complete. The bench mark is obtained from the annual report, A Review of Railway Operations in 19–, of the Bureau of Railway Economics of the Association of American Railroads, which includes information on construction expenditures of all class I railroads.[10] Construction expenditures by class I railroads are adjusted upward to include outlays for all railroad construction on the basis of the relatively stable ratio of class I investment in road and structures to such investment by all railroads.

(2) Local transit: The figures on construction expenditures are included in the American Transit Association's annual publication, Transit Fact Book, and cover the operations of all transit companies in the United States. Unpublished data, also obtained from the American Transit Association, indicate the amount of expenditures made annually by municipally owned transit companies. This figure is subtracted from the total published figure to obtain the amount spent annually by privately owned companies.[11]

The monthly trend is based on the trend shown by other public utilities.

[9] Farm construction expenditures were first published in the Department of Agriculture study, Income Parity for Agriculture, Part II, Section 5 (March 1941). Data for subsequent years and revisions of the published estimates back to 1934 have been obtained from the BAE in unpublished form.

[10] Similar data compiled by the ICC are available some time subsequent to the BRE report and may be substituted.

[11] Construction expenditures by municipally owned companies are included in data for the public category, "Miscellaneous public service enterprises."

(3) Petroleum pipe lines: Expenditures from the reports filed with the Interstate Commerce Commission are adjusted to eliminate the purchase of existing lines and to allow for companies not required to file information with it. To obtain monthly data, estimates are made on the basis of the trend shown by Dodge contract award data that have been distributed by activity patterns, and Securities and Exchange Commission quarterly data on capital expenditures of utility companies.

(4) Electric light and power: Annual reports to the Federal Power Commission by class A and B electric utilities give the total value of all new facilities completed during the current year and the value of uncompleted work in progress at the end of the year. They are transcribed and summarized, and the results adjusted by the Office of Domestic Commerce to exclude the value of work done in earlier years and the value of property acquired through purchase, and to include data for small companies. Monthly figures are estimated the same way as for petroleum pipe lines.

(5) Gas: The annual construction expenditures figures for both manufactured and natural gas utility industries, published by the American Gas Association, are adjusted to eliminate equipment purchases. Monthly data are estimated in the same way as for the petroleum pipe line and electric light and power groups.

Public Construction. Estimates of expenditures for public construction are obtained by combining separate estimates for two components: Federal construction and all other public construction (i.e., State, county, and municipal).[12] This is done because monthly information currently available on Federal construction is generally more satisfactory than information on State and local public construction, and also because the Bureau of Labor Statistics is required to present a separate report of monthly Federal expenditures. The following section describes for each category of public construction the methods of estimating first the Federal, and then the non-Federal component.

Residential building by the Federal Government has been confined to military installations, atomic energy facilities, and to such other Federal property as dam construction and control areas, since completion in 1948 of the veterans' temporary re-use housing program under title V of the Lanham Act. Expenditures for such construction are included in the "Military and naval facilities" and "Conservation and development" categories listed on page 178. All data currently reported in the public residential classification. therefore, represent outlays by non-Federal public agencies.

By far the most important of these local agencies has been the New York City Housing Authority from which expenditures data are collected monthly. These data are a reconciliation of estimates by the contractor and by NYCHA engineers of the amount of work placed, and are prepared primarily to determine monthly payments to the contractors. For the smaller programs in other places, estimates are made by applying typical residential construction patterns to data collected by appropriate Bureau of Labor Statistics regional offices on the cost and estimated start and duration of the projects.

Federal nonresidential building data are derived for each type of construction as follows:

(1) Educational: Since completion of the Veterans' Educational Facilities Program in 1948, there has been little expenditure of Federal funds for construction of educational institutions. The relatively small amount of construction of schools on Federal properties (such as at remote Army bases or sites of large conservation projects) is included in other construction categories.

(2) Hospital and institutional: The two major Federal programs of hospital construction—the Veterans Administration Program and the National Hospital Program [13]—make up the Federal component of this category. The Office of the Chief of Engineers and the Veterans Administration, which supervise the veterans hospital program, obtain monthly progress reports from

[12] The main division in construction expenditures is between private and public projects. It is based on the ownership of the facilities under construction. Within the public category, however, two types of division between Federal and other public construction is possible, because of the grants of funds under Federal-aid programs. One is on the basis of ownership. The other, which is the one used in estimating expenditures for public construction, is based on the source of the construction funds. To illustrate, the Federal-Aid Highway Program provides Federal funds for State highway construction. Therefore, expenditures for State highway construction presented under an ownership classification exceed those for the same construction under a source-of-funds classification by the amount of the Federal grants.

The foregoing applies only to Federal grants. Federal loans for construction, such as those by the Rural Electrification Administration for the extension of power facilities, are considered to be the funds of the agency receiving them (i.e., the owner of the facilities) and therefore do not give rise to different results under the two classification systems.

[13] The construction program authorized by the Hospital Survey and Construction Act of 1946, Public Law 725, 79th Congress.

the field and make these reports available to the Bureau of Labor Statistics for transcription and tabulation.

The National Hospital Program is, however, a Federal-aid program, and as such presents special estimating problems. Construction expenditures for the program as a whole are summarized by the Bureau of Labor Statistics from individual project progress reports collected by the State agencies administering the program and submitted to the Hospital Facilities Division of the Public Health Service. Of these total expenditures, the portion which represents Federal funds is then added to the veterans hospital expenditures to obtain the Federal component of the total public hospital category.

(3) All other nonresidential: Separate expenditures estimates are prepared for each type of building in this category. The Federal expenditures for these types of construction are relatively small, and are frequently included in other major categories (recreational buildings for military personnel, for example, are reported under "Military and naval facilities"). The Federal expenditures represented in this group are made by (1) the Public Buildings Administration on such structures as the General Accounting Office in Washington; (2) other Federal agencies, such as the National Advisory Committee for Aeronautics; and (3) by the United Nations for its headquarters in New York City, which is included here for want of a supranational classification. For the first and third, monthly progress reports are obtained from the agency supervising construction; for the second, estimates are based on annual data from the Budget of the United States, and on Federal contract award information reported by the agency to the Bureau of Labor Statistics.

Non-Federal nonresidential building estimates are derived, in general, by distributing the dollar value of contracts awarded over a number of months according to a typical pattern developed from experience records for actual construction projects. The contract award series used is that compiled by the Office of Economic Research in the General Services Administration for State and local public construction, using information collected by the F. W. Dodge Corp. in the 37 Eastern States.[14] To obtain data for the noncovered Western States and to supplement Dodge coverage in other areas, the Office of Economic Research routinely searches some 20 to 25 construction periodicals and a number of other sources of construction information. The Bureau of Labor Statistics inflates OER award figures to compensate for undercoverage.

For hospital construction, a modification is made in the general method of estimating non-Federal expenditures for public nonresidential buildings. Non-Federal expenditures (as well as Federal) in the grant-in-aid National Hospital Program are obtained from the Federal Security Agency, which administers it. The OER series is therefore used to estimate only the expenditures on public hospital construction in which the Federal Government does not participate. These expenditures are added to the non-Federal contributions to the National Hospital Program to obtain the non-Federal public component of the total public hospital category.

For military and naval facilities, the expenditures reported represent the volume of all construction, regardless of type, at Federal military installations. The relatively small amount of military construction by the States (armories, rifle ranges, and the like) are included with other public construction categories according to type of construction.

The data for both construction agencies of the Department of Defense—the Office of the Chief of Engineers and the Bureau of Yards and Docks—are based on monthly progress reports for all construction projects at the facilities of the armed services. These reports reflect the observation or the actual measurement by service engineers of the volume of work accomplished during the month. Army Engineers data are summarized by the agency and published monthly for limited distribution. Data for construction by the Bureau of Yards and Docks, on the other hand, are summarized by the Bureau of Labor Statistics from the basic field reports.

Highway construction expenditures estimates are the sum of five components—expenditures on the Federal-Aid Highway Program,[15] on State highways independent of the program, on county roads, municipal streets, and on roads on Federal lands. For the Federal-Aid Program, which accounts for roughly half of total highway expenditures, monthly data on work actually placed

[14] See footnote 8.

[15] The construction program undertaken under the terms of the Federal-Aid Highway Acts of 1944 and 1948, which provide Federal funds to assist the States in road construction.

are available, which are based on observations by engineers of the Bureau of Public Roads, United States Department of Commerce. The Bureau of Public Roads tabulates these data for internal use, and supplies pertinent aggregates for the expenditures estimates, showing Federal grants separately.

Annual data on highways built on Federal lands are reported by the Bureau of Public Roads and monthly estimates are derived using trends on the Federal-Aid Program. To arrive at the total for Federal expenditures on highways, the amounts of Federal grants for highways and all expenditures for highway construction on Federal lands are added.

Annual expenditures figures (by government jurisdiction) for all roads and streets, prepared by the Bureau of Public Roads from special financial reports submitted by State highway departments, establish the general level of expenditures for highway construction outside the Federal-Aid Program. The month-to-month trend is based on reported data for the Federal-Aid Program as just described.

The cumulative accuracy of these estimates is checked roughly, using highway contract award statistics prepared by the Bureau of Public Roads and the Office of Economic Research in the General Services Administration.

For sewer and water and miscellaneous public service enterprises, the small amount of Federal construction is confined to Federal property, and is included with other major types of construction. The expenditures estimate covering sewer and water facilities and miscellaneous public service enterprises, therefore, represents State and local projects only. It is derived from a distribution of contract award data compiled by the Office of Economic Research, General Services Administration, and inflated for undercoverage. The estimating procedure is the same as that described for the non-Federal component of public nonresidential building (see p. 184).

Conservation and development expenditures, as reported currently, represent the volume of all new construction, regardless of type, at the sites of Federal projects for the conservation, development, or control of the Nation's water resources. Expenditures by non-Federal public agencies for construction for these purposes are represented in other categories, chiefly in "All other public," according to type.

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The Bureau of Reclamation and the Civil Works Division of the Office of the Chief of Engineers are responsible for most Federal conservation construction. The comparatively small remaining amount is supervised by some dozen other agencies, such as the Tennessee Valley Authority and the International Boundary and Water Commission, United States and Mexico.

For the two major construction agencies, expenditures data are based on progress reports on work placed during the month as estimated by Government engineers. In both cases, tabulation is by the Bureau of Labor Statistics from the individual project reports. With the exception of the Tennessee Valley Authority, which prepares for the expenditures series a monthly summary of actual costs, monthly expenditures data are not available for the minor agencies. Annual figures for these agencies are obtained from the Budget of the United States, and are projected month by month on the basis of the trends reported by the two major agencies.

All other public construction not elsewhere classified covers such projects as airports, parks, athletic fields, memorials, navigational aids, and the like. Airfields have lately accounted for nearly half the total activity in this category, and the expenditures are therefore separately estimated. Most such construction is undertaken with Federal financial aid (under the provisions of the Federal Airport Act of 1946). Progress of construction under each grant is reported monthly by regional offices to the central office of the Civil Aeronautics Administration, which administers the program. These data are tabulated by the Bureau of Labor Statistics, and the totals thus derived are divided to represent Federal and other contributions to the program. The other contributions are added to the relatively small expenditures for airport construction financed without Federal assistance, as obtained from OER contract award data, to obtain non-Federal public expenditures for airports.

For types of construction other than airfields in the "All other" category, the small amount of Federal outlay is estimated monthly from the annual figures presented in the Budget of the United States. Non-Federal expenditures are obtained by a distribution of OER contract-award figures.

Recent Decisions of Interest to Labor[1]

Wages and Hours[2]

Portal Act—Contract or Custom. (1) The Court of Appeals for the First Circuit held[3] that it was error for a trial court summarily to dismiss a suit for overtime compensation under the Fair Labor Standards Act merely because the complaint contained only general allegations that the overtime work was compensable by contract or custom.

Allegations in the complaint as to compensability of the overtime work were almost exactly in the words of section 2 (a) (2) of the Portal-to-Portal Act, which permits recovery of overtime compensation for the period prior to May 14, 1947, only in instances in which services were compensable according to contract or custom.

The trial court dismissed the complaint because it interpreted section 2 of the Portal Act as meaning that a court has no power to consider claims prior to May 14, 1947, unless the employee's complaint names the specific activities for which overtime compensation was sought and sets forth the express provision of a contract or custom which made the activities compensable. In so holding the court followed the rulings of several other lower courts.

The court of appeals reversed the trial court on the ground that the Portal Act prescribed no stiffer rules of pleading than were generally applicable under the Federal Rules of Civil Procedure, which, the court held, require no more than general pleadings. It pointed out that a complaint should not be summarily dismissed unless it is certain that no relief should be granted under any set of facts which could be proved in support of the claim. The appellate court further stated that there was no evidence that the claim was based on preliminary or postliminary activities, compensation for which was barred by the Portal Act. Section 2 (d) of the Portal Act, which withdrew claims for noncompensable work from jurisdiction of the Federal courts, did not require that the allegations of compensability be specific.

One judge dissented, on the ground that section 2 (d) was meaningless unless it was held to require specific allegation of the facts upon which jurisdiction depended. He pointed out that the dismissal by the lower court was with leave to the employee to amend his complaint to make more specific allegations, and that the employee had failed to take advantage of this opportunity.

(2) The Court of Appeals for the Second Circuit ruled[4] that section 2 of the Portal Act did not permit recovery under the Fair Labor Standards Act for time consumed in preliminary and postliminary activities, greater than the amount of time for which such activities were made compensable by a union contract and a custom at the plant.

The union contract provided that 15 minutes a day constituted a reasonable average time required by an employee to change to and from working clothes and that such time should be included in hours of work made compensable. The custom consisted of letting employees off from productive work 5 minutes before closing time, for washing. An employee suing for overtime compensation claimed that changing clothes took more than 15 minutes a day and washing up more than 5 minutes a day. He claimed that the contract and custom were intended to make the activities covered thereby compensable for the full time he spent in such activities.

The district court, dismissing the suit, rejected the claim. It held that, at least with regard to the type of portal activities covered by the Portal Act, a promise to compensate a limited time spent in certain activity could not be considered a promise to compensate for all time so spent.

The appellate court dismissed the appeal, for the reasons given in the district court's decision.

[1] Prepared in the U. S. Department of Labor, Office of the Solicitor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

[2] This section is intended merely as a digest of some recent decisions involving the Fair Labor Standards Act and the Portal-to-Portal Act. It is not to be construed and may not be relied upon as interpretation of these acts by the Administrator of the Wage and Hour Division or any agency of the Department of Labor.

[3] *Manosky* v. *Bethlehem-Hingham Shipyard* (U. S. C. A. (1st), Nov. 9, 1949).

[4] *Galvin* v. *National Biscuit Co.* (U. S. C. A. (2d), Nov. 28, 1949).

"Overtime-on-Overtime" Act Constitutional. A district court held [5] constitutional the provisions of Public Law 177, Eighty-first Congress (the "Overtime-on-Overtime Act of 1949"). This act retroactively terminated the liability of employers under the Fair Labor Standards Act for "overtime-on-overtime" compensation.

The act excluded from the definition of the regular rate of pay, for purposes of computing overtime compensation, extra compensation paid employees in certain industries for work at certain irregular hours.

The court had previously dismissed the suit of longshoremen employees for overtime compensation, on the ground that the employers had, in good faith, followed and relied upon overtime-pay practices approved by rulings of the Wage and Hour Administrator, and were therefore protected from liability by section 9 of the Portal Act. Upon the filing of additional motions and presentation of additional arguments by both sides, the court reaffirmed its original conclusions. It also held applicable the Overtime-on-Overtime Act, which it stated to be constitutional, when applied retroactively, on the same grounds as those on which the Portal Act had been upheld.

Public Contracts Act—Child Labor. A district court had held that a trial examiner's finding that an employer had "knowingly" employed child labor in violation of the Public Contracts Act was not supported by a preponderance of the evidence. A Federal Court of Appeals upheld [6] this decision.

When employing the minors in question the employer had questioned them as to their age and they all replied that they were over 16. The employer did not have actual knowledge of the age of the boys, who were subsequently found to have been under 16.

The trial examiner found the employer guilty of violating the act because, he stated, the youthful appearance of the boys was enough to put him on notice to inquire further as to their age. This finding was approved by the Secretary of Labor, and suit was brought for liquidated damages.

The district court dismissed the suit on the ground that these findings were not supported by the evidence. The court of appeals affirmed this decision on the ground that the findings of fact of the Government should not be set aside unless clearly erroneous. The appellate court stated that the mere absence of actual knowledge on the employer's part would not absolve him from liability. But it quoted findings of the district court that evidence indicated the employer had made employees fill out forms as to their age and that the employees' testimony was often supported by that of other persons.

Nightwatchman Engaged in Commerce. A district court held [7] that a nightwatchman whose duty it was to guard the entire premises of a wholesale grocery company, including cars on railroad sidings and an adjoining warehouse, was engaged in commerce and the production of goods for commerce; he was, therefore, entitled to overtime compensation under the Fair Labor Standards Act.

The employer was engaged in processing and selling rice and coffee, most of which was purchased and transported by rail from out of the State to the employer's premises. After staying in cars on railroad sidings for several hours during the night, the goods were taken to the warehouse for processing, and then were shipped out. A small proportion of the finished goods were sold outside the State.

The nightwatchman was the only person on the premises at night. He had no access to the inside of any of the buildings or cars where the goods were stored, but he made hourly rounds to prevent and report fire or theft and thereby saved his employer a considerable amount in insurance costs.

The court held that the employer's purchases remained in interstate commerce while they were in freight cars on the railroad spurs, and until they came to rest in the warehouse. The nightwatchman was held to make such a valuable contribution to the uninterrupted continuation of this flow of goods as to be engaged in commerce. He was also held to be engaged in the production of goods for commerce because he guarded the warehouse wherein the processing occurred.

Labor Relations

Free Speech—State Prohibition of Interference with Employment. The United States Supreme Court held [8] that an Arkansas law prohibiting assem-

[5] *Moss* v. *Hawaiian Dredging Co.* (U. S. D. C., N. D. Calif., Nov. 25, 1949).
[6] *United States* v. *Craddock-Terry Shoe Corp.* (U. S. C. A. (4th), Dec. 21, 1949).
[7] *McComb* v. *Russell Co.* (U. S. D. C., S. D. Miss., Dec. 16, 1949).
[8] *Cole* v. *State of Arkansas* (U. S. Sup. Ct., Dec. 5, 1949).

blage of persons near the scene of a labor dispute for the purpose of violently preventing any person from engaging in lawful work was not an unconstitutional abridgment of the right of free speech.

The statute made it unlawful for any person, acting in concert with others, to assemble at or near a place where a labor dispute exists and by force or violence to prevent or attempt to prevent any person from engaging in a lawful vocation, or for any person to promote, encourage, or aid such assembly.

The case came to the United States Supreme Court after the State supreme court had upheld conviction of the accused on retrial in the trial court. The United States Supreme Court had previously remanded the case to the State court on the ground that conviction was based on a different section of the statute from the violation found by the trial court.

Those accused of violating this statute were strikers who had assembled near the entrance to the struck plant, but apart from the picket line. One of this group attacked a nonstriking employee who had refused to stop upon request after one of the accused had said, "Come on, boys." Another of the accused, carrying a stick, told a different nonstriker to go ahead, as they weren't after him.

As applied, the Court held, the statute was not an abridgment of the right of free speech granted by the Federal Constitution. Promotion of an assembly whose purpose is to wreak violence, said the Court, is not an exercise of the right of free speech. It also held that the statute was not a denial of due process of law, as it was not so vague in its terms that men of ordinary intelligence could not ascertain its meaning.

Closed Shop—Rival Union Activity. An employer did not commit an unfair labor practice by discharging, at the request of a union with whom it had a valid closed-shop agreement, employees whom the union had expelled because of their activity in behalf of a rival union. The United States Supreme Court so held [9] in an important decision interpreting the meaning of the National Labor Relations Act before its amendment in 1947.

The employees were expelled from the International Longshoremen's and Warehousemen's Union (CIO) in 1945, 4 years after its negotiation with the employer of a closed-shop agreement of indefinite duration. The reasons given were agitation in behalf of a rival (AFL) union and participation in an unauthorized strike in violation of the CIO pledge of no strikes in wartime. A majority of all employees had participated in this strike.

When the employer discharged these employees at the union's demand, the National Labor Relations Board charged the company with violating sections 8 (1) and 8 (3) (of the National Labor Relations Act), which referred to interference with union activity and discrimination in regard to hire and tenure. The proviso in section 8 (3), permitting a closed-shop agreement with a union which was lawful representative of the majority of employees in the bargaining unit, was held to be no defense, although on its face it permitted the discharge of employees not members of the majority union. The Board's decision was based on the "Rutland Court doctrine." [10] That doctrine sets forth that where the contract is of indefinite duration, an employer cannot discharge an employee, even under a valid closed-shop contract, when, to the employer's knowledge, the union is requesting the discharge for the purpose of eliminating employees who have sought to change bargaining representatives at a period when it is appropriate for them to seek a redetermination of representatives. To uphold closed-shop agreements of indefinite duration at all times, the Board held, would allow circumvention of section 7, guaranteeing the right of employees to self-organization. The court of appeals affirmed the Board's decision.

In reversing the decision, the Supreme Court held the closed-shop proviso of section 8 (3) was an express limitation of the rights of employees under section 7. The legislative history of the NLRA was held to indicate that Congress intended there should be such a limitation, in view of the rejection of amendments to prohibit coercion of employees by fellow employees. What Congress had enacted into law could not be changed by an administrative declaration of policy.

Union Security—Grounds for Discharge. An employee who tenders to a union an amount equal to initiation fees and accrued dues is protected by section 8 (a) (3) of the NLRA as amended in 1947, from discharge by an employer who has a

[9] *Colgate-Palmolive-Peet Co.* v. *NLRB* (U. S. Sup. Ct., Dec. 5, 1949).

[10] *In re Rutland Court Owners, Inc.* (44 NLRB 587, 46 NLRB 1040).

valid union-shop contract with that union. A union that threatens a work stoppage unless an employer discharges such an employee violates section 8 (b) (2) of the act which prohibits a union from causing or attempting to cause discrimination by an employer in violation of section 8 (a) (3). An employer who yields to such threats is guilty of violation of that section.

The NLRB so held [11] in a case in which a union had rejected an employee's tender of initiation fees and dues. It refused to admit him to membership until he had attended its next regular meeting at which applicants would be voted upon, had taken the obligation to the union, had then tendered initiation fees and dues.

The Board held that while there was no violation of proviso A of section 8 (a) (3), which prohibits discharge of an employee for nonmembership in a union when such membership was not available to him on the same terms generally applicable to other members, proviso B had been violated. Proviso B prohibits discharge of a nonunion employee if the employer has reasonable grounds for believing that membership was denied for reasons other than failure to tender periodic dues and initiation fees. These two provisos, the Board held, have independent scope.

Secondary Boycotts. A number of court and National Labor Relations Board decisions deal with the question of secondary boycotts.

(1) The court of appeals for the second circuit upheld [12] the constitutionality of section 8 (b) (4) (A) of the amended NLRA, which prohibits secondary boycotts. The prohibition was held neither to abridge freedom of speech in violation of the first amendment nor to provide for involuntary servitude in violation of the thirteenth.

A distillery company was engaged in a labor dispute with its employees. The NLRB sought enforcement of an order it had issued against strikes and boycotts by union employees of distributors of the distillery's products. The union's claim that the employees and the distributors were also engaged in labor disputes of their own was dismissed by the Board on the ground that such disputes were trivial. Upholding the Board's decision, the court of appeals pointed out that even assuming disputes had existed between the distributors and their employees, the strikes were still unlawful, although only one of the objects was secondary. The court also held that the legislative history of section 8 (b) (4) (A) clearly indicated that the section was intended to prohibit all secondary boycotts and not merely those prohibited at common law.

(2) The National Labor Relations Board ruled [13] that a union, by picketing at customers' and consignees' premises, trucks of an employer with whom the union had a labor dispute, did not engage in a secondary boycott prohibited by the amended NLRA.

The primary employer was engaged in the interstate truck transportation of perishable goods. On moving his New York City terminal from New York to New Jersey, he ceased to employ New York truck drivers for deliveries in the metropolitan area, and replaced them by New Jersey drivers from another local of the same international union as the New York drivers. Thereupon the New York local peacefully picketed the employer's trucks in front of his customer's premises at the time of loading and unloading.

The Board held that the legislative history of section 8 (b) (4) (A) indicated that its provisions must be read with the implicit condition that the inducement of such strikes and boycotts must be accomplished by secondary, not primary, means. It pointed out that, without this limitation, almost all picketing would be prohibited by the section. Congress, the Board stated, obviously did not intend to put such a severe limitation on the right to strike, which was expressly preserved in section 13.

In holding that the picketing was primary and not secondary, the Board pointed out that (1) picketing was strictly limited in time and area to the employer's trucks and there was no picketing of customers' premises as such, (2) the employees involved in the dispute were formerly employed by the primary employers as drivers in the New York area, and (3) the employer was engaged in his normal business of transportation in that area.

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[11] *In re Union Starch and Refining Co.* (87 NLRB No. 137, Dec. 16, 1949).

[12] *National Labor Relations Board* v. *Wine, Liquor & Distillery Workers Union* (U. S. C. A. (2d), Dec. 12, 1949).

Its constitutionality was previously upheld in *Printing Specialties & Paper Converters Union* v. *LeBaron* (171 F. 2d 331 (C. A. 9)), and *United Brotherhood of Carpenters & Joiners* v. *Sperry* (170 F. 2d 863 (C. A. 10)).

[13] *In re International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America, Truck Drivers and Chauffeurs Local No. 807 (AFL)* (87 NLRB No. 82, Dec. 9, 1949).

It also pointed out that picketing of loading and unloading at customers' places of business was the only effective method of picketing left to the union. The picketing, it held, was at the picketers' own place of employment.

Two Board members dissented on the ground that previous Board decisions precluded the establishment of a doctrine of a roving place of business for truck drivers, and that the right to strike preserved by the act did not necessarily always include the right to wage an effective strike.

(3) The NLRB held [14] that the mere placing of a primary employer's name on an unfair list was not, by itself, a violation of the secondary boycott provisions of the amended NLRA, even though as a result a few employees withheld their services from secondary employers.

A local building trades council had a dispute with an employer because of his employment of nonunion men. It put his name on an unfair list, which was posted on the council's bulletin board and circulated among local unions. When a soda fountain made by the primary employer was to be installed at a drug store, the council's business agent told a plumber hired by a subcontractor that the soda fountain was "unfair." In reply to questioning, the business agent said it was immaterial that the primary employer's nonunion employees were absent. The next day an agent of the electrician's union, accompanying the council's agent, told an electrician hired by a subcontractor "I cannot order you off the job, but you know what you better do about it." Evidence was given that the plumber kept on working at installation of the soda fountain, but that the electrician had refused to work at it before appearance of the union agents, and that his action was influenced by the unfair list.

The Board held that the unfair list, like picketing of a primary employer's plant, was merely a method of advertising the labor dispute with the employer to its members and to the general public. This "traditional weapon used * * * in direct support of a primary labor dispute" did not lose its legal status merely because certain employees of secondary employers were influenced by it.

Board members Reynolds and Gray dissented from the holding that the unfair list as used was not a violation of section 8 (b) (4) (A). They thought that this list had, as its primary purpose, the influencing of employees of secondary employers to boycott the primary employer by withdrawing their services from employers doing business with him or handling his products.

Jurisdictional Disputes. An AFL ship painters' local union picketed two ships being painted by members of a CIO longshoremen and warehousemen's union local. The painters were working at an hourly wage 28 cents less than that established for the same work by the AFL union. The ship painters' union, after receiving numerous complaints from contractors that competing contractors employing longshoremen's union members paid a lower wage scale, decided upon a protest line to inform the public and other unions and persons doing that type of work of this differential in wage scale. Pamphlets distributed by the pickets described the dispute as one over a wage differential.

The NLRB ruled [15] that this dispute was over differing wage scales and not over the assignment of work. Therefore, it had no jurisdiction, it stated, to determine this dispute under section 10 (k) of the amended NLRA, such jurisdiction being limited by the terms of section 8 (b) (4) (D)—prohibiting strike or boycott in furtherance of jurisdictional disputes—to disputes over the assignment of work.

Noncomplying Union—Effect on Employer's Duty to Bargain. The NLRB ruled [16] that a union's failure to comply with the filing and noncommunist-affidavit provisions (secs. 9 (f), (g), and (h)) of the amended NLRA excused an employer from its duty to bargain with the union, but did not excuse interference with union activities, or discrimination against individual union members in violation of sections 8 (a) (1) and 8 (a) (3) of the act.

An employer, after receipt of a union's letter requesting that it be recognized as bargaining agent, threatened before a group of employees to close the plant rather than recognize the union. The employer also circulated a unilateral offer of a wage increase to be made without consulting the

[14] *In re Denver Building & Construction Trades Council et al.* (87 NLRB No. 136, Dec. 16, 1949).

[15] *In re Ship Scaling Contractors' Association* (87 NLRB, No. 14, Nov. 18, 1949).

[16] *In re Isaac Andreeu et al.* (87 NLRB No. 62, Dec. 6, 1949).

union, and subsequently presented a questionnaire as to the employees' preference concerning the union and a bonus plan and shorter hours, and put the bonus plan into effect.

These activities occurred after the enactment of sections 9 (f), (g), and (h), of the amended NLRA. Until 3 days before the circulation of the questionnaire, the union was not in compliance with these sections.

In ruling that the employer was under no duty to bargain with a noncomplying union, the Board pointed out that sections 9 (f), (g), and (h) prohibited it from issuing a complaint pursuant to a charge filed by a noncomplying union. These provisions were held to constitute more than procedural limitations on the Board's powers, and to place substantive limitations on enforcement of bargaining rights of unions which had failed to carry out the policies prescribed by Congress.

That the union had subsequently complied with the filing and noncommunist-affidavit requirements was held to be no ground for changing the decision. To allow a union to withhold compliance and then secure retroactive protection for its acts prior to compliance, the Board stated, would permit circumlocution of the act. The mere threat of subsequent compliance would induce recognition of the union by the employer. Failure by the employer to specify the union's noncompliance with the act as its reason for refusal to bargain was held immaterial, since the requirements of the act were substantive and could not be waived. The fact that the union had complied with the act before the last unfair labor practices of the employer—was held not to make such practices violations of section 8 (a) (5), since the union had not yet renewed its request for recognition.

Two Board members dissented from the decision not to find violation of the employer's duty to bargain. Their dissent was on the ground that the employer had not assigned the union's noncompliance with the law as the reason for its refusal to bargain. These members thought the provisions of sections 9 (f), (g), and (h) were intended to be only procedural.

Intra-Union Disputes. A district court held [17] that it was prevented by the Norris-LaGuardia (Anti-Injunction) Act from taking jurisdiction of a petition by a United Electrical Workers local. The local sought to compel an employer to continue to bargain with it and to enjoin the employer from recognizing and bargaining with a new local union formed after UE's expulsion from CIO.

The employer had recognized the new union as bargaining agent after an overwhelming majority of members had voted in favor of disaffiliating from the old UE national union and for affiliation with the International Union of Electrical, Radio, and Machine Workers, CIO. The contract between the old union and the employer did not expire until May 1, 1950.

The court held that the dispute was one between two warring factions of a labor union and constituted a "labor dispute" within the meaning of the Norris-LaGuardia Act. It also held that section 301 of the Labor Management Relations Act did not give the court jurisdiction to entertain petitions for injunctions, but only applied to damage suits. No damages were sought in this case.

Decisions of State Courts

New York—Injunction Against Union Affiliation Change. A State trial court considered the legality of changes in affiliation of unions.

(1) The court refused to enjoin one union from affiliating with another union [18] when it found the affiliation and the procedure adopted to accomplish it were not in conflict with the union's constitution.

The injunction was sought to prevent the affiliation of the United Farm Equipment & Metal Workers of America with the United Electrical Radio and Machine Workers of America, on the grounds that such a merger was in furtherance of a conspiracy to disaffiliate the Farm Equipment union from the CIO, and that the referendum in which union members voted for the merger was prohibited by the union's constitution. It was alleged that the union's constitution permitted referenda only concerning minor matters.

In denying the injunction, the court pointed out that the union constitution gave its executive board general supervision over "all" union affairs and the power to "issue referenda on any question

[17] *Duris* v. *Phelps Dodge Copper Products Corp.* (U. S. D. C., N. J., Nov. 28, 1949).

[18] *Arena* v. *Oakes* (N. Y. Sup. Ct., Spec. Term, Pt. III, N. Y. Co., Nov. 30, 1949).

whenever it may find it necessary" and not just on minor matters. The contention that the referendum constituted an amendment to the constitution was rejected.

(2) The court held [19] in another case that local 450 of UE could not be enjoined from seceding from the national UE upon termination of the latter's affiliation with CIO, on the ground that CIO affiliation was a condition to local 450's association with the national UE.

In accepting its charter from the national union, local 450 agreed to be bound by the national's constitution. This constitution provided that the secession or dissolution of any local was invalid if seven or more members "indicate their desire to retain the local charter." When the national UE was expelled from the CIO, the members of local 450 held meetings at which a majority voted to continue their affiliation with CIO and to transfer their local's property to a committee of seven with power to deal with the property as they saw fit. The motion for injunction instituted by minority members alleged that over seven members had voted against the transfer and that such transfer was for the purpose of starting a new union in violation of the union constitution.

In holding that the action of the majority at the union meeting was not in violation of the union constitution, the court pointed to provisions of the local's constitution that local 450 shall be "affiliated with United Electrical, Radio and Machine Workers of America, CIO" and with district 4 of UE, CIO, as an indication that affiliation with CIO was a condition of the local's affiliation with UE. The court also pointed to the history of the negotiations in the grant by UE of a charter to local 450, as indicating that the local was induced to join UE because of the latter's affiliation with CIO. It rejected arguments that the CIO affiliation provisions in the constitution were for inter-union purposes only.

Wisconsin—Picketing—Unlawful Object. The Supreme Court of Wisconsin held [20] that picketing to compel an employer to join a union as an inactive member and pay dues and initiation fees to it was an unfair labor practice in violation of the Wisconsin employment relations law.

The employer operated a beauty shop with four employees. He had previously had a closed-shop agreement with the union and had a union-shop card, which could be displayed on condition that he comply with the union's conditions listed on the back. One condition was that the employer should be an inactive member of the union. When he refused to comply with this condition, he gave up the union-shop card on the union's request. He was thereupon picketed by the union. The employer filed a complaint with the Wisconsin Employment Relations Board, which ordered the union to cease picketing.

On appeal, the State supreme court affirmed this decision. It held that the picketing was for an unlawful object—to compel the employer to commit an unfair labor practice under the State law by contributing "financial support" to a union. The court held that the prohibition was not limited to contributions of financial support in an attempt to dominate a union. The matter of support by employer dues and fees was held not so trivial as to be of no account.

[19] *Clark* v. *Fitzgerald* (N. Y. Sup. Ct., Spec. Term, Pt. 111, N. Y. Co., Dec. 6, 1949).

[20] *Wisconsin Employment Relations Board* v. *Journeyman Barbers, Hairdressers and Cosmetologists International Union of Amer., Local 379B* (Wis. Sup. Ct., Nov. 15, 1949).

Chronology of Recent Labor Events

December 12, 1949

THE SUPREME COURT OF THE UNITED STATES, in the case of *United States* v. *Shoreline Cooperative Apartments, Inc.*, No. 334, unanimously upheld the constitutionality of the Housing and Rent Act of 1949, thus reversing a lower court decision. The contested point in the law, which the Court declared constitutional, was the delegation to local and State officials of authority to remove rent controls whenever, in their opinion, they are no longer necessary. (Source: U. S. Law Week, 18 LW, p. 3181, Dec. 13, 1949.)

THE SUPREME COURT OF THE UNITED STATES, in the case of *Casselman* v. *State of Idaho*, sustained an Idaho statute forbidding secondary boycotts in "labor disputes," by refusing to review a lower court decision. Four striking employees of the Western Electric Co. (a subsidiary of the Bell Telephone System), were charged with violation of the Idaho law, because the placards they carried in picketing a building, which housed both the parent company and the subsidiary, did not say that the labor dispute was limited to the latter. (Source: U. S. Law Week, 18 LW, p. 3184, Dec. 13, 1949.)

THE UNITED STEELWORKERS OF AMERICA (CIO) ended its 38-day strike against the Timken Roller Bearing Co., by accepting a pension plan of the Bethlehem type (see Chron. item for Oct. 31, 1949, MLR, Dec. 1949) and a joint contributory welfare plan including sickness, accident, and life insurance benefits for the 10,000 union members employed by the company. (Source: Steel Labor, Jan. 1950, p. 4.)

December 17

THE NATIONAL LABOR RELATIONS BOARD, in the case of *Weyerhaeuser Timber Co., Oreg.* v. *Local 6–12, International Woodworkers of America (CIO)*, ruled that the price of meals in company-operated dining rooms is subject to collective bargaining, if no other eating places are convenient to employees. (Source: NLRB release R–272, Dec. 18, 1949.)

THE INTERNATIONAL UNION of Electrical, Radio and Machine Workers (IUE–CIO) (see Chron. item for Nov. 28, 1949, MLR, Jan. 1950), in announcing its first major contract, reported that the Philco Corp. had recognized it as the exclusive bargaining agent for that company's 7,000 workers at its Philadelphia plant. The contract provides for a Bethlehem-type pension plan, and for job severance benefits, which are "believed to be the first ever obtained for production workers in a large plant." (Source: CIO News, Dec. 19, 1949, p. 6, and New York Times, Dec. 18, 1949.)

December 18

THE NLRB, in the case of *Local 679, Cannery Warehousemen, Food Processors, Drivers and Helpers Union (AFL)* v. *Nora E. Stiers* and *Clara-Val Packing Co.* v. *Same*, ruled that a threat to strike in order to force an employer to discharge a worker unwilling to participate in union activities is a violation of the Labor Management Relations Act. The union had threatened to strike against the company if it did not discharge a worker who had been expelled from the union for continuing to cross a picket line at a struck plant near where she worked, and for refusing payment of a fine for violation of union rules. (Source: NLRB release R–273, Dec. 19, 1949.)

On December 20, the NLRB, in the case of *Union Starch & Refining Co., Ill.*, v. *Local 153, American Federation of Grain Millers (AFL)*, further ruled that an employee cannot be discharged under a union contract for violation of union rules, provided that he pays his dues and initiation fees. In this case, the union had requested and obtained the discharge of three workers who refused to attend a union meeting although they had offered to pay dues and initiation fees. Two of these workers were unwilling to take the union oath because of religious scruples. (Source: NLRB release R–275, Dec. 21, 1949.)

December 20

THE NLRB, in the case of *The Grauman Co. of Denver* v. *Denver Building and Construction Trades Council (AFL)*, announced that the placing of an employer with whom a union has a dispute on an "unfair list" is not a violation of the secondary boycott provision of the LMRA. The Board compared the "unfair" listing of a primary employer to direct picketing of that employer's premises. (Source: NLRB release R–274, Dec. 20, 1949.)

December 21

THE NLRB, in the case of *Rabouin* v. *Local 294, International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America (AFL)*, ruled that a union can legally refuse to handle the goods of a struck employer, if its contract so provides. The Board dismissed secondary boycott charges against the union for inducing employees of three concerns to stop handling goods from a struck company. It found that these employees had a union-employer agreement to refuse to handle such goods and were therefore "exercising their contractual privilege" in boycotting the struck company. (Source: NLRB release R–276, Dec. 21, 1949.)

THE INTERNATIONAL Longshoremen's and Warehousemen's Union (CIO) and 26 Hawaiian cane-sugar plantations agreed, after 10 months of negotiations, to tie the wages of about 20,000 workers to the fluctuation of sugar prices. A minimum of 80 cents an hour has been set.

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On January 1, 1950, all sugar workers were to receive an increase of 4½ cents an hour, under the escalator clause adopted. (Source: The Dispatcher, Jan. 6, 1950, p. 1.)

THE NLRB, in the case of *Di Giorgio Fruit Corp.* v. *Local 218, National Farm Labor Union (AFL)*, held that a farm workers' union cannot be prosecuted for unfair labor practices under the LMRA, since it is not a "labor organization" within the meaning of the law. (Source: NLRB release W–117, Dec. 21, 1949; for discussion, see MLR, Jan. 1950, p. III.)

December 22

E. I. DU PONT DE NEMOURS & Co. announced that, subject to the approval of its stockholders, it would expand its existing pension plan on May 1, 1950. Minimum benefit payments were fixed at $100 a month (including social security) for 75,000 employees upon retirement at age 65, after 25 years of service. (Source: New York Times, Dec. 23, 1949.)

THE NLRB, in the case of *Weyerhaeuser Timber Co.* v. *International Brotherhood of Electrical Workers (AFL)*, ruled that separate craft representation is not appropriate in the lumber industry "in view of the comprehensive and consistent history of industrial bargaining, the extensive integration of all production and maintenance work, and the fact that the industry has tended to develop specialists rather than workmen in the craft tradition." (Source: NLRB release R–277, Dec. 22, 1949.)

THE NLRB, in the case of the *International Typographical Union (AFL)* v. *Graphic Arts League*, found that the union had violated the LMRA in its relations with 22 printing shops in Baltimore by (1) insisting on the exclusive employment of union members as foremen in the composing rooms, (2) by attempting to cause employers to discriminate against nonunion members, and (3) by refusing to enter into contracts of reasonable duration as a condition of collective bargaining. (Source: NLRB release R–280, Dec. 22, 1949.)

December 27

THE AMALGAMATED ASSOCIATION of Street, Electric Railway, and Motor Coach Employees (AFL) ended its 6-day transit strike in Cleveland after an injunction had been issued enjoining its continuance on the grounds that Ohio's Ferguson Act (invoked for the first time) prohibits strikes by public workers. The union accepted an arbitration ruling on vacation pay, establishing a minimum of 88 hours' pay for operating and 80 hours' pay for nonoperating employees. Other disputed issues were to be negotiated. (Source: New York Times, Dec. 27 and 28, 1949.)

THE COUNCIL OF ECONOMIC ADVISERS submitted its fourth annual report to the President, in accordance with the terms of the Employment Act of 1946. (Source: Business and Government, Fourth Annual Report to the President by the CEA, Washington, Dec. 27, 1949.)

On January 4, President Truman delivered his message on the State of the Union to Congress. (Source: Congressional Record, vol. 96, No. 2, Jan. 4, 1950, pp. 62–66.)

On January 6, the President submitted his Economic Report to Congress, as required by the Employment Act of 1946. (Source: The Economic Report of the President, Washington, Jan. 6, 1950; for discussion of the foregoing documents, see p. 140 of this issue.)

December 30

FIVE LOCALS OF THE International Fur and Leather Workers Union (CIO) in New York City agreed with the Associated Fur Manufacturers, Inc., to revive the "two price" system in the fur industry. This decision resulted in a wage cut of 11 percent for about 12,000 workers during the slack season from January 1 to June 16. The union agreed to the return of the system (which was discontinued during wartime) because of unfavorable conditions in the industry in 1949 and on the understanding that the cuts would be restored after June. (Source: CIO News, Jan. 9, 1950, p. 3.)

January 1, 1950

A COMPANY-PAID WELFARE PLAN went into effect for members of the Seafarers International Union (AFL) employed by nine steamship companies on the Atlantic and Gulf coasts. The union, which in turn agreed to extend its existing working agreement to September 30, 1951, estimated that welfare contributions by shipowners (25 cents a day per man employee) would total 1 million dollars by the end of the year. The types of benefits were to be decided by the union and shipowners in the near future. (Source: New York Times, Jan. 2, 1950.)

January 10

LOCAL 501 OF THE United Automobile Workers (CIO), which ended an 18½-week strike against the Bell Aircraft Corp. at Buffalo on October 19 (see Chron. item for Oct. 19, 1949, MLR, Dec. 1949), accepted an hourly wage increase of 5 cents (retroactive to October 20) awarded by a New York State Board of Inquiry. Half of this increase will be the employees' contribution to a jointly financed insurance program. The Board denied the union a company-financed pension plan and increases in vacation benefits. (Source: New York Times, Jan. 11, 1950.)

January 11

JOHN L. LEWIS, president of the United Mine Workers of America (Ind.), "suggested" that the 66,000 bituminous-coal miners who had quit work in a series of wildcat strikes beginning January 9, resume work on January 16. (Source: New York Times, Jan. 12, 1950.)

On January 6, eight Ohio coal operators filed damage suits totaling more than 11 million dollars against the officials of the UMWA. The mine owners accused them of violating Ohio's Valentine Act by "unlawfully reducing coal production in Ohio by 7 million tons in 1949." (Source: New York Times, Jan. 7, 1950.)

Publications of Labor Interest

Special Reviews

Applied Experimental Psychology: Human Factors in Engineering Design. By Alphonse Chapanis, Wendell R. Garner, Clifford T. Morgan. New York, John Wiley & Sons, Inc., 1949. 434 pp., bibliographies, charts, illus. $4.50.

Applied experimental psychology, as defined in this work, is essentially a study of the average human being's capabilities and limitations, and the practical application of the knowledge so acquired to improvement in designs of machines, instruments, and other mechanical devices used by man. Machines can be made more efficient by being designed to suit the physical make-up of the human beings who operate them. However, man's development has limits—both physiological and psychological. Jobs that push him beyond the limits of his skill, speed, sensitivity, and endurance will not be done.

This book reviews, in a comprehensive, concise manner, what experimental psychologists and time-and-motion engineers have learned about how men see, hear, and make movements. It then shows how the information about man's capabilities can be applied to practical design problems.

As case studies, the basic problems of visibility and visual acuity are applied to the legibility of instrument dials and visual displays. The characteristics of sound and hearing and the factors affecting intelligibility of speech are related to the problems involved in a perfectly designed communications system. The classification and measurement of movements are applied to the design and use of controls, and to the arrangement of work. A discussion of fatigue and working environment gives some clues as to how the efficiency of men operating machines can be increased.

The presentation of some elementary statistical concepts and formulas serves as a background for some statistical ideas that have special importance in the investigation of man-machine relationships; statistical methods covered are particularly valuable in psychological research and in analysis of man-machine interpretations.

Although applied experimental psychology started at the turn of the century, scientific studies in man-machine relationships have been few in number. The recent war put the spotlight on the glaring gap in modern technology—the lack of engineering of machines for human use and of production engineering leading to efficient utilization of the machines. Engineering psychology, being a young field, has no textbooks. This book, a rewrite and an expansion of a series of lectures on engineering psychology to the postgraduate engineering students at the Naval Postgraduate School at Annapolis, is "an adventure into a new field of applied science and an adventure into a new style of textbook writing."

In the interest of completeness, the authors discuss many experiments which had contradictory and inconclusive results and give what they think is the best answer to each problem. They also emphasize the inadequacy of existing data and the need for extensive research and experimental studies. —G. S.

Industrial Psychology. By Thomas Willard Harrell. New York, Rinehart & Co., Inc., 1949. 462 pp., bibliographies, charts, illus. $4.25.

Studies in recent years of employer-worker relations frequently have emphasized the problems involved in developing cooperation and better "human" relations. Although social-science techniques have been brought to bear on these problems, social scientists themselves, industrialists, and labor leaders recognize that solutions of the problems have lagged far behind their recognition.

In this book, Professor Harrell indicates how techniques of psychology, a science he classifies as both social and biological, can be applied toward the solution of some of these problems. He points out that "as recently as 1930 it was assumed that the importance of psychology in industry was largely confined to the use of tests; today we view its function as the analysis of human relations in industry." While psychology cannot supply ready answers to many of the basic problems in labor-management relations, "psychologists have been able to demonstrate in recent years that they do have significant contributions to make toward [their] solution."

People's activities at home as well as at work are considered by the author, since activities at work "are affected in important ways by what is done at home." In line with this point of view, the author discusses differences between individuals, the measurement of such differences, and how a knowledge of the differences can be utilized in the development of better industrial relations. In a section devoted to improvement of work techniques, the role of psychology in securing worker cooperation in improvement of methods is emphasized. Finally, the author develops the concept of human relations in labor-management problems and discusses in detail the psychological motivations which lead individuals and groups of individuals to act as they do in relation to their jobs. The concluding chapter outlines—on the basis of the psychologist's knowledge of motivation—the measures which employers can adopt to secure greater labor-management cooperation. —I. R.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

Cooperative Movement

Federal Credit Unions: Report of Operations for the Year 1948. Washington, Federal Security Agency, Social Security Administration, Bureau of Federal Credit Unions, 1949. 20 pp., map, charts.

Detailed report on operations of credit unions chartered under the Federal Credit Union Act. The statistics are shown by classified assets, by State, and by type of membership. The totals were incorporated in the Bureau of Labor Statistics' annual report on operations of State and Federal credit unions, published in the September 1949 Monthly Labor Review and reprinted as Serial No. R. 1969.

Handbook on Major Regional Farm Supply Purchasing Cooperatives, 1947–48. By Joseph G. Knapp and Jane L. Scearce. Washington, U. S. Department of Agriculture, Farm Credit Administration, Cooperative Research and Service Division, 1949. 47 pp., map; processed. (Miscellaneous Report No. 134.)

Gives information for each of the 18 largest cooperatives purchasing farm supplies. These together had a business, for the fiscal year ending in 1948, of nearly 858½ million dollars.

North Dakota Cooperative Statistics: Eighth Annual Statistical Report, for the Past Fiscal Year, of the Division of Cooperatives, North Dakota Department of Agriculture and Labor. Bismarck, 1949. 15 pp. (Bull. No. 69.)

Data for 112 cooperative oil associations, 16 stores, 278 grain elevators (including their purchasing departments), 30 creameries, 32 mutual insurance associations, 82 State and Federal chartered credit unions, and a group of miscellaneous associations (including telephone companies, REA associations, cold-storage associations, etc.).

The Development of the Cooperative Movement in Asia. Report prepared for Asian Regional Conference of ILO (Nuwara Eliya, Ceylon, January 1950). Geneva, International Labor Office, 1949. 84 pp. (Studies and Reports, New Series, No. 19.) 50 cents. Distributed in United States by Washington Branch of ILO.

Account of cooperative development, means and machinery for such development, new trends, and problems faced in Burma, Ceylon, China, India and Pakistan, Japan, the Philippines, Thailand, and Singapore and the Federation of Malaya. Although in all these countries credit societies were the first form taken by cooperative effort, other types of cooperatives have outstripped the credit associations in recent years. According to the report, the chief source of "driving power and guidance" has been the Governments. Through Departments of Cooperation, for the most part, the Governments have assisted the cooperatives in various ways and also have utilized them in some cases as a means of distributing rationed and other goods.

European Cooperatives as Markets for United States Farm Products. By John H. Heckman. Washington, U. S. Department of Agriculture, Office of Foreign Agricultural Relations, 1949. 66 pp., illus.; processed. (Foreign Agriculture Report No. 39.)

Results of studies made by the author in 10 countries (England, Scotland, Norway, Sweden, Denmark, Netherlands, Belgium, France, Switzerland, Italy). Although the purpose was to determine to what extent farm products of the United States could be sold to cooperatives in these countries, a great deal of information about the national federations of consumers' as well as agricultural cooperatives is given. Tables show imports of such items as fruit, vegetables, cheese, etc., by the cooperative organizations before and after World War II.

Housing

The Housing Act of 1949: A Federal Program for Public Housing and Slum Clearance. (*In* Illinois Law Review, Chicago, November–December 1949, pp. 685–708.)

Concludes that although the Act appears to look beyond immediate housing needs, there is a question as to the extent to which Congress can extend housing activities to satisfy existing requirements, without adopting programs such as certain European nations have established.

The Housing Act of 1949 and Health Department Programs. By Ralph J. Johnson. (*In* Public Health Reports, Federal Security Agency, Public Health Service, Washington, October 28, 1949, pp. 1331–1336. 10 cents, Superintendent of Documents, Washington.)

Significance to Farmers of Housing Act of 1949. By Roy J. Burroughs. (*In* Agricultural Finance Review, U. S. Department of Agriculture, Bureau of Agricultural Economics, Washington, November 1949, pp. 33–45.)

A New Era in Public Housing. By Harold and John I. Robinson. (*In* Wisconsin Law Review, Madison, July 1949, pp. 695–705. 75 cents.)

Traces developments in public housing subsequent to enactment of the United States Housing Act of 1937, and concludes that the revival of the Federal program places the responsibility for its success directly upon its national and local administrators.

State and Local Housing Programs After World War II. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 4 pp. (Serial No. R. 1977; reprinted from Monthly Labor Review, November 1949.) Free.

Industrial Accidents and Accident Prevention

Injuries and Accident Causes in Textile Dyeing and Finishing. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 65 pp., charts. (Bull. No. 962.) 45 cents, Superintendent of Documents, Washington.

Collective Bargaining Provisions: Safety, Health, and Sanitation. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 48 pp. (Bull. No. 908–14.) 20 cents, Superintendent of Documents, Washington.

Labor-Management Co-operation in Accident Prevention in the United States. By Ernest Dale. (*In* Industrial Safety Survey, International Labor Office, Geneva, April–June 1949, pp. 41–50. 50 cents. Distributed in United States by Washington Branch of ILO.)

State Safety Conferences—A Guide. Washington, U. S. Department of Labor, Bureau of Labor Standards, 1949. 11 pp. (Bull. No. 109.) Free.

Suggestions for organizing a State industrial safety conference, made by the staff of the President's Conference on Industrial Safety.

Manual of Accident Prevention in Construction. Washington, Associated General Contractors of America, Inc., 1949. 252 pp., diagrams, illus. 3d rev. ed. $3.

American Standard Safety Code for Mills and Calendars in the Rubber Industry. New York, American Standards Association, 1949. 31 pp., charts, illus. $1.

Industrial Hygiene

Industrial Applications of Medicine and Psychiatry, with a Paper on the Changing Concept of the Personnel Function. New York, American Management Association, 1949. 31 pp. (Personnel Series, No. 130.)

Dermatitis in the Rubber Industry. By Louis Schwartz, M. D. (*In* Safety Engineering, New York, November 1949, pp. 62–66. 50 cents.)

Silicosis in the Potteries. Silicosis in Sandstone Workers. By A. J. Meiklejohn. (*In* British Journal of Industrial Medicine, London, October 1949, pp. 230–240, 241–244. 7s. 6d.)

Silicosis is a serious and widespread disease among pottery workers in the North Staffordshire area of Great Britain, the author states. He presents findings of 750 autopsies made between 1931 and 1946 by the Stoke-on-Trent panel of the Medical Board for Silicosis, supplemented by a similar study of 295 sandstone workers.

Artificial Lighting in the Printing Industry. Melbourne, etc., Department of Labor and National Service of Australia, Industrial Welfare Division, 1949. 32 pp., bibliography, charts, illus.; and separate Data Sheets: Group A, 21 pp., diagrams, illus.; Group B, 44 pp., diagrams, illus.

Industrial Relations

"Achieving Better Understanding": A Summary of 30th Annual Session of the Southern Industrial Relations Conference, Blue Ridge, N. C., July 20–23, 1949. Atlanta, Ga., Donaldson-Woods Co. [printers], 1949. 116 pp.

Bottom-Up Management: People Working Together. By William B. Given, Jr. New York, Harper and Brothers, 1949. 171 pp. $2.50.

This book deals with the experience of a manufacturing company which has plants in over 40 cities and towns in the United States. The author, head of the company, defines "bottom-up" management as that in which the head of a business "tries to release the thinking and encourage the initiative of all those down the line, so that ideas and impetus flow from the bottom up, and the entire organization contributes in the fullest possible measure to the progress and profits of the enterprise." This is contrasted with "top-down" management, in which the head of the business "does practically all the thinking and planning and issues orders to those under him."

Causes of Industrial Peace Under Collective Bargaining: Lockheed Aircraft Corporation and International Association of Machinists. By Clark Kerr and George Halverson. Washington, National Planning Association, 1949. 87 pp. (Case Study No. 6.) $1.

Collective Bargaining and Market Control in the New York Coat and Suit Industry. By Dwight Edwards Robinson. New York, Columbia University Press, 1949. 248 pp., bibliography. $3.50.

Account of development of collective bargaining in the principal center of the women's and misses' coat and suit industry and of the efforts of a strong union and an employers' association of wide scope to solve the industry's problems, to obtain compliance with agreements, and to limit nonunion competition. Regulatory activities of the employers' association falling outside of the collective bargaining framework are also discussed. Emphasis is given to the work of the Office of the Impartial Chairman; the NRA; the National Coat and Suit Industry Recovery Board, which kept alive the principles of the NRA codes; and the Federal Trade Commission investigation into activities of the union-supported employers' group. The author believes that the coat and suit industry's bargaining system has achieved a remarkable record.

Collective Bargaining in Small-Scale Industry—A Case Study. By Richard B. Wolf. (*In* Harvard Business Review, Boston, November 1949, pp. 706–714. $1.50.)

Collective Bargaining Provisions: Strikes and Lock-Outs; Contract Enforcement. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 101 pp. (Bull. No. 908–13.) 25 cents, Superintendent of Documents, Washington.

Collective Bargaining Strategies and Tactics. (*In* Conference Board Management Record, National Industrial Conference Board, Inc., New York, September 1949, pp. 382–384, 417–424.)

Master Agreements in Collective Bargaining. By W. Ellison Chalmers and Scott MacEachron. Urbana, University of Illinois, Institute of Labor and Industrial Relations, 1949. 21 pp., bibliography. (Publications Series A, Vol. 3, No. 5.) Single copies free.

The authors describe various types of multiplant bargaining, trace reasons for its adoption, and evaluate its advantages and disadvantages. In addition, they summarize the experience of San Francisco with region-wide bargaining and of the pottery industry with industry-wide bargaining. Tabulations indicate the extent of multiplant bargaining, by industry.

Multi-Employer Bargaining and the Anti-Trust Laws. By Bert W. Levy. Philadelphia, University of Pennsylvania, Wharton School of Finance and Commerce, Labor Relations Council, 1949. 82 pp. (Industry-Wide Collective Bargaining Series.) $1.50.

Transmitting Information Through Management and Union Channels—Two Case Studies. By Helen Baker, John W. Ballentine, John M. True. Princeton, N. J., Princeton University, Industrial Relations Section, 1949. 140 pp. (Research Report Series, No. 79.) $2.50, paper bound; $3, cloth.

The communications systems discussed are those used to exchange information between management and employees at Johnson & Johnson and Esso Standard Oil Co. (Bayway Refinery). Factors in successful communication common to each of the firms are outlined.

Industry Reports

The Development of the American Glass Industry. By Pearce Davis. Cambridge, Mass., Harvard University Press, 1949. 316 pp., bibliography. (Harvard Economic Studies, Volume LXXXVI.) $6.

The purposes of the study are outlined as, first, to present a historical account of the economic evolution of major branches of glass manufacture; and second, to describe the rise of organized labor in glassmaking, forms of early union organization, union policies, and impact of the mechanical revolution on the status of the unionized worker; and third, to analyze the interrelations between the tariff policy of the United States and the growth of glassmaking. The study ends with the first quarter of the present century.

Seasonal Fluctuations in Employment in the Women's Clothing Industry in New York. By Gertrud Berta Greig. New York, Columbia University Press, 1949. 164 pp., bibliography, charts. (Columbia University Studies in History, Economics and Public Law, No. 554.) $2.75.

Describes seasonal characteristics of the women's clothing industry as a whole in the New York market in comparison with other markets; discusses characteristics of the unit-price dress industry, comparing experience of manufacturers' shops and contract shops; and makes use of work histories of a limited sample of workers, as reflected in unemployment insurance records, for a chapter on mobility of dress workers. The concluding chapter includes discussions of problems of handling seasonal unemployment and administering unemployment compensation.

Annual Report and Statement of Accounts of National Coal Board, [Great Britain], for Year Ended December 31, 1948. London, H. M. Stationery Office, 1949. 299 pp., charts. 6s. 6d. net.

Includes information on employment and working conditions in coal mines. An article on British coal mining since nationalization, based in part on the Coal Board's report, was published in the Monthly Labor Review for January 1950 (p. 19).

Annual Report on Labor Statistics for the Printing Industry of Montreal and District, 1948. Montreal, Printing Industry Parity Committee for Montreal and District, 1949. 39 pp.; processed.

Labor Legislation

Adjusting to the New Wage-Hour Law. New York, Research Institute of America, 1949. 47 pp. (Analysis 69.)

Amendments to Fair Labor Standards Act. (*In* Supplement No. 2 to NAM Law Digest, Vol. XI, National Association of Manufacturers, Washington, November 1949, pp. 3–24.)

What the 1949 Wage-Hour Act Means: Information About the Newly Amended Law and a Summary of its Provisions. Washington, Chamber of Commerce of the United States, Employer-Employee Relations Division, 1949. 34 pp.

Some Effects of the Taft-Hartley Act. By Dale E. Good. Urbana, University of Illinois, Institute of Labor and Industrial Relations, 1949. 28 pp. (Publications Series A, Vol. 3, No. 4.)

The Taft-Hartley Act in Operation. By Paul A. Brinker. (*In* Southern Economic Journal, Chapel Hill, N. C., October 1949, pp. 147–160. $1.25.)

Evaluation of provisions of the Labor Management Relations Act, 1947, and an analysis of how it has worked in practice. The author concludes that it "has been somewhat beneficial and somewhat harmful. A new act along lines of a compromise between the Wagner [National Labor Relations] Act and the Taft-Hartley Act should provide our country with a better labor law than we have yet had."

Minnesota Labor Relations Act—An Opinion Survey. By Jack Stieber. (*In* Harvard Business Review, Boston, November 1949, pp. 665–677. $1.50.)

Labor Law Journal, Volume I, No. 1. Chicago, Ill., Commerce Clearing House, Inc., October 1949. 80 pp. 50 cents a copy, $6 a year.

This first issue of a monthly publication which will deal with labor law developments includes articles on various phases of labor law by authorities in their respective fields, and staff-prepared notes on current legislation, pending and enacted; court and administrative decisions; and recent literature in the labor field.

Labor Organizations

Summary of Resolutions and Recommendations Adopted by the AFL and CIO Conventions in 1949. Washington, Chamber of Commerce of the United States, Employer-Employee Relations Division, 1949. 19 pp.; processed.

The Fur Workers Union. By Robert D. Leiter. (*In* Industrial and Labor Relations Review, Ithaca, N. Y., January 1950, pp. 163–186. $1.25.)

Reasons for the Growth of the Knights of Labor in 1885–86. By Donald L. Kemmerer and Edward D. Wickersham. (*In* Industrial and Labor Relations Review, Ithaca, N. Y., January 1950, pp. 213–220. $1.25.)

The Unlicensed Seafaring Unions. By Philip Taft. (*In* Industrial and Labor Relations Review, Ithaca, N. Y., January 1950, pp. 187–212. $1.25.)

Statutory Regulation of Internal Union Affairs. By Benjamin Aaron and Michael I. Komaroff. (*In* Illinois Law Review, Chicago, September–October 1949, pp. 425–466; November–December 1949, pp. 631–674.)

Histoire des Cheminots et de Leurs Syndicats. By Guy Chaumel. Paris, Marcel Rivière et Cie., 1948. 199 pp., bibliography. 280 frs.

Traces the labor movement in France as a whole, and in the railway industry in particular, from 1831 to 1947. Covers consolidation of unions into industry-wide federations in 1917, factional splits, and history of principal strikes and benifits obtained thereby.

Trade Unions in the New Society. By Harold J. Laski. New York, Viking Press, 1949. 182 pp. $3.

The author is not a newcomer to the American scene, having written extensively in the field of economics, and particularly in the field of American labor. The present book, dedicated to the memory of Sidney Hillman, late president of the Amalgamated Clothing Workers of America, is the outcome of a series of lectures by Mr. Laski under the auspices of the Sidney Hillman Foundation. In the main, he is opposed to the type of trade-unions existing in Soviet Russia, which merely perform functions assigned to them by the State. They "have lost any voluntary character they once possessed; above all, they have lost the right to strike." Mr. Laski, however, is also seriously perturbed over trade-union development in the United States, which, in his opinion, is too slow and is without an over-all long term philosophy.

Personnel Management and Activities

Employee Attitude Surveys: An Analysis. By Doris Rose Henle. (*In* Personnel Journal, Swarthmore, Pa., November 1949, pp. 218–225. 75 cents.)

Deals with factors that influence employee attitudes and with objectives and benefits of surveys in this field, topics to be covered, and rules and procedures to be followed.

Handbook of Personnel Forms and Records. By Eileen Ahern. New York, American Management Association, 1949. 227 pp. (Research Report No. 16.) $3.50 to nonmembers of association.

Merit Rating as a Management Tool. By Robert E. Shaeffer. (*In* Harvard Business Review, Boston, November 1949, pp. 693–705. $1.50.)

After the Whistle Blows: A Guide to the Field of Recreation in Industry. By Jack Petrill. New York, William-Frederick Press (for Industrial Recreation Bureau), 1949. 351 pp., bibliography, diagrams, forms. $10.

Employee Recreation Activities—Administration and Cost. By Geneva Seybold. New York, National Industrial Conference Board, Inc., 1949. 56 pp. (Studies in Personnel Policy, No. 102.)

Handbook for Civil Servants, Province of Ontario. Toronto, Civil Service Commission, [1949]. 46 pp.

Population

Demographic Yearbook, 1948. Prepared by Statistical Office, in collaboration with Department of Social Affairs, United Nations. Lake Success, N. Y., 1949. 596 pp., bibliography. In English and French. $7, Columbia University Press, New York.

First issue of a yearbook authorized by the United Nations Economic and Social Council in 1947. The introduction describes previous compilations containing similar information, particularly those by the League of Nations, indicates the character and scope of the volume, and describes processes of collecting and compiling the data. Main subjects covered are population, vital statistics, reproduction rates and life tables, and international migration.

Histoire de la Population Mondiale de 1700 à 1948. By Marcel R. Reinhard. Paris, Éditions Domat-Montchrestien, [1949]. 795 pp., bibliography, charts, illus.

Plenty of People: The World's Population Pressures, Problems, and Policies, and How They Concern Us. By Warren S. Thompson. New York, Ronald Press Co., 1948. 281 pp., maps, charts. Rev. ed. $3.50.

Population Transfers in Asia. By Joseph B. Schechtman. New York, Hallsby Press, 1949. 149 pp., bibliography, maps. $1.50.

Report of the Royal Commission on Population. London, H. M. Stationery Office, 1949. 259 pp., charts. (Cmd. 7695.) 4s. 6d. net.

Summary of findings of a 5-year study of population trends in Great Britain, with recommendations as to measures in the national interest. Broadly, the commission viewed the national interest as calling for a replacement size of family. It was found that the recent average family size has been somewhat below the size necessary for population replacement. Family size at the replacement level should be promoted, in the view of the commission, by various measures for family welfare, described as desirable alike to assure population replacement and to maintain equity and general social welfare.

Postwar Rise in Longevity of Industrial Population, [United States]. (*In* Statistical Bulletin, Metropolitan Life Insurance Co., New York, August 1949, pp. 1–3.)

Production and Productivity

Productivity in Agriculture, 1909–48. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 31 pp.; processed. Free.

Productivity in the Electric Light and Power Industry, 1917–48. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 7 pp.; processed. Free.

The Measurement of Production Movements. By C. F. Carter, W. B. Reddaway, Richard Stone. Cambridge, England, Cambridge University, Department of Applied Economics, 1948. 135 pp., bibliography. (Monograph No. 1.) 12s. 6d. net, Cambridge University Press.

The Interim Index of Industrial Production. London, Central Statistical Office, 1949. 52 pp. (Studies in Official Statistics, No. 1.) 1s. net, H. M. Stationery Office, London.

As in the United States, the last decade has witnessed sharp changes in the structure of the industrial system of Great Britain. The two studies reviewed here present two new measures of British industrial production designed to reflect these changes. The first is that of the London and Cambridge Economic Service, and the second, the official index. It is unfortunate that no detailed comparison of the two indexes is made in either report.

The monograph written by Carter, Reddaway, and Stone can be used as a textbook for statistical courses on the construction of index numbers. It is divided into three parts. Part 1 is a general discussion of the problems of measuring production movements, with the London and Cambridge index providing the illustrations; part 2 gives details of that index; and part 3 gives historical production series for the United Kingdom.

The publication of the Central Statistical Office is restricted to a description of the official index of production. Although not as detailed as the first monograph, this study allows for a firm grasp of the methods used in constructing the index. Comparisons, with alternative weights, are made between industrial production in 1935–38 and in 1946.

It is interesting to note that, unlike United States physical production indexes, building construction is included in both indexes. Also, that the official index deliberately omits the use of man-hours in estimating production for any industry, in an effort to make the index useful in estimating changes in output per man.

Profit Sharing

Proceedings, First Annual Conference, Council of Profit Sharing Industries, Chicago, Ill., November 8–9, 1948. Akron, Ohio, Council of Profit Sharing Industries, 1949. 124 pp. $1.50.

Profit-Sharing Plans in Industry. By Robert L. Rowe. (*In* Harvard Business Review, Boston, September 1949, pp. 559–584. $1.50.)

General discussion of "factors to be considered in the formulation of any [profit-sharing] plan and the dangers or pitfalls which may be encountered in its administration." A tabulation giving details of representative plans is included.

Winstdeling door Werknemers. By D. A. C. Zoethout. Purmerend, J. Muusses, [1949]. 87 pp., bibliography.

Deals with profit sharing in the Netherlands and in the United States.

Unemployment Insurance

Comparison of State Unemployment Insurance Laws as of September 1949. Washington, U. S. Department of Labor, Bureau of Employment Security, 1949. 113 pp. 30 cents, Superintendent of Documents, Washington.

The principal statutory provisions are summarized and compared, State by State. Similar information is given on five State laws which provide unemployment benefits for temporary nonoccupational disability.

Back Pay Awards and Unemployment Insurance Benefits. By Herman A. Gray. (*In* Arbitration Journal, Vol. 4, No. 4, New York, 1949, pp. 268–272. $1.)

Concludes that whether or not an agreement submitting a discharge case to arbitration makes mention of unemployment insurance benefits, the arbitrator is required only to determine the validity of the discharge and whether to order reinstatement with pay for the worktime lost. "The matter of possible overpayment because of the receipt of unemployment insurance benefits lies in other hands."

Dependents' Allowances in Unemployment Insurance. (*In* Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, October 1949, pp. 24–27. 20 cents, Superintendent of Documents, Washington.)

Unemployment Compensation for Multistate Workers. (*In* Columbia Law Review, New York, November 1949, pp. 993–1000. $1.)

Discussion of the problems involved, with references to State laws and to court decisions.

Reconversion Unemployment Benefits for Seamen. By Olga S. Halsey. (*In* Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, August 1949, pp. 15–18. 20 cents, Superintendent of Documents, Washington.)

Traces the history of temporary unemployment compensation for seamen, which became effective in July 1947 under an amendment to the Federal Social Security Act. The program will expire on June 30, 1950, unless extended by Congress.

Trends in Unemployment Insurance Financing. By Rachel S. Gallagher. (*In* Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, October 1949, pp. 3–9, 20. 20 cents, Superintendent of Documents, Washington.)

Arbeitslosenfürsorge und Arbeitslosenversicherung in Deutschland. By Michael T. Wermel and Roswitha Urban. Munich, Richard Pflaum Verlag, 1949. In 3 parts, 104, 88, 111 pp. (Neue Soziale Praxis, Heft 6.)

History of unemployment relief and unemployment insurance in Germany from its early beginning at the end of the 19th century through the introduction of unemployment insurance in 1927 and the liquidation of this program by the Nazi regime.

Wages, Salaries, and Hours of Labor

Community Approach to Wage Studies. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 6 pp. (Serial No. R. 1971; reprinted from Monthly Labor Review, October 1949.) Free.

Wage Chronology Series, Vol. II: General Motors Corporation, 1939–49. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 6 pp. (Bull. No. 970–2; reprinted from Monthly Labor Review, September 1949.) 10 cents, Superintendent of Documents, Washington.

Wage Structure Series 2, No. 74: Airframes, 1949. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1949. 21 pp.; processed. Free.

Office Workers Salaries and Personnel Practices, San Francisco Bay Area, Midyear 1949. Oakland, United Employers, Inc., 1949. 38 pp.; processed.

Oregon Teachers' and Administrators' Salaries for 1949–50. Portland, Oregon Education Association, 1949. 12 pp.; processed. (Research Bull., Vol. VIII, No. III.)

Wages and Working Conditions in the Edible Animal Products Industry, [Canada], October 1948. (*In* Labor Gazette, Department of Labor, Ottawa, November 1949, pp. 1445–1461. 10 cents.)

Comparison Between Basic Wages and Hours of Work in the Lithographing Industry, [Province of Quebec], 1939, 1949. Montreal, Lithographing Industry Parity Committee for the Province of Quebec, 1949. 9 pp.; processed.

Regelingen van Lonen en Andere Arbeidsvoorwaarden in Nederland op 1 Januari 1949. Utrecht, Centraal Bureau voor de Statistiek, 1949. 187 pp., chart; processed.

Miscellaneous

The Economic Report of the President Transmitted to the Congress January 6, 1950, Together With a Report to the President, The Annual Economic Review, by the Council of Economic Advisers. Washington, 1950. 194 pp., charts. 50 cents, Superintendent of Documents, Washington.

Information from this report is given in this issue of the Monthly Labor Review (p. 140).

Inflationary and Deflationary Tendencies, 1946–48. Lake Success, N. Y., United Nations, Department of Economic Affairs, 1949. 52 pp.

Management Men and Their Methods. Edited by Luis J. A. Villalon. New York, Funk & Wagnalls Co., in association with Modern Industry Magazine, 1949. 270 pp., chart. $3.

A series of 33 sketches of men in management who "made good," including an outstanding arbitrator. The sketches are very brief and stress only the more significant human characteristics and the methods used by the individuals in attaining their success. In his introductory note on "What Makes an Executive," the author draws the conclusion that more and more executives are "assuming a personal obligation toward the welfare of their community, their employees, and their country. Here is the real touchstone of change in the American businessman."

Our Changing Industrial Incentives. By Harry W. Laidler. New York, League for Industrial Democracy, 1949. 39 pp., bibliography. 25 cents.

Discusses the incentives for best results of work under private enterprise (for administrator, inventor and scientist, and rank and file worker), in nonprofit undertakings (including cooperatives), and under "democratic socialism." Cites the examples of many distinguished persons to forward the thesis that there are many other incentives besides money, and that a system of "democratic socialism" would provide the greatest amount of these.

Our Industrial Age. By H. M. Boodish. New York, McGraw-Hill Book Co., Inc., 1949. 390 pp., bibliographies, charts, illus. $2.60.

This textbook dealing with the "origin and development of our industrial society and its major economic, social, and political problems" includes a chapter on labor relations and one on social security.

Planning by Americans in Agriculture, Business, Labor, the Professions: 1949 Report to Members of the National Planning Association. Washington, National Planning Association, 1949. 36 pp., illus.

African Labor Efficiency Survey. Edited by C. H. Northcott. London, H. M. Stationery Office, 1949. 123 pp., charts. (Colonial Research Publications, No. 3.) 2s. net.

The study was made among the 7,000 African employees of the Kenya and Uganda Railway in Nairobi, by a team comprising a medico-nutritional unit and two labor specialists. After discussing the problem of African employment, in terms of demands made by modern industry on individuals used to tribal customs, the report analyzes, from the standpoint of incentives to greater efficiency, the wage structure of the railways, and housing and nutrition of the workers.

It is pointed out that the inquiry, in the time at its disposal, could do little more than indicate the way to a fuller investigation, which is urged. It did, however, reveal some of the major factors retarding technical efficiency. The most serious were regarded as lack of education and physical handicaps resulting from malnutrition. Other impeding factors were said to be the Africans' growing economic and political discontent.

Training and good supervision, including the planning of jobs and provision of adequate tools, were thought to be the most important requirements for increasing efficiency.

Indian Labor Since Independence. By H. Venkatasubbiah. (*In* Asian Labor, New Delhi, October 1949, pp. 45–51. Rs. 2/8.)

Norwegian Labor Looks at the United States of America and the Union of Soviet Socialist Republics. [Washington], U. S. Economic Cooperation Administration, Office of Information, [1949]. 33 pp. Free.

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NOTE.—Earlier figures in many of the series appearing in the following tables are shown in the Handbook of Labor Statistics, 1947 Edition (BLS Bulletin 916). The Handbook also contains descriptions of the techniques used in compiling these data and information on the coverage of the different series. For convenience in referring to the historical statistics, the tables in this issue of the Monthly Labor Review are keyed to tables in the Handbook.

MLR table	*Handbook table*	*MLR table*	*Handbook table*	*MLR table*	*Handbook table*	*MLR table*	*Handbook table*
A–1	A–12	A–8	A–9	D–1	D–1	D–8	D–6
A–2	[1]	B–1	B–1	D–2	D–2	E–1	E–3
A–3	[1]	B–2	B–2	D–3	D–2	F–1	H–1
A–4	[1]	C–1	[1]	D–4	D–4	F–2	H–2
A–5	A–8	C–2	[1]	D–5	D–2 and D–3	F–3	H–4
A–6	[1]	C–3	C–10	D–6	D–4	F–4	[1]
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[1] Not included in 1947 edition of Handbook.

A: Employment and Pay Rolls.

TABLE A-1: Estimated Total Labor Force Classified by Employment Status, Hours Worked, and Sex

Labor force	Estimated number of persons 14 years of age and over [1] (in thousands)												
	1949												1948
	Dec.	Nov.[2]	Oct.	Sept.[2]	Aug.	July [2]	June	May	Apr.	Mar.	Feb.	Jan.	Dec.
Total, both sexes													
Total labor force [3]	63,475	64,363	64,021	64,222	65,105	65,278	64,866	63,452	62,327	62,305	61,896	61,546	62,828
Civilian labor force	62,045	62,927	62,576	62,763	63,637	63,815	63,398	61,983	60,835	60,814	60,388	60,078	61,375
Unemployment	3,489	3,409	3,576	3,351	3,689	4,095	3,778	3,289	3,016	3,167	3,221	2,664	1,941
Employment	58,556	59,518	59,001	59,411	59,947	59,720	59,619	58,694	57,819	57,647	57,167	57,414	59,434
Nonagricultural	51,783	51,640	51,290	51,254	51,441	50,073	49,924	49,720	49,999	50,254	50,174	50,651	52,059
Worked 35 hours or more	42,260	36,766	41,354	27,366	40,407	27,686	40,924	41,315	40,761	40,761	40,830	41,314	43,425
Worked 15-34 hours	6,126	11,383	6,056	19,683	5,231	14,701	5,425	5,073	5,913	5,964	5,737	5,533	5,303
Worked 1-14 hours [4]	2,049	1,991	2,027	1,867	1,509	1,438	1,525	1,778	1,888	1,944	1,876	1,899	1,844
With a job but not at work [5]	1,349	1,501	1,855	2,339	4,294	6,247	2,051	1,554	1,438	1,585	1,730	1,907	1,488
Agricultural	6,773	7,878	7,710	8,158	8,507	9,647	9,696	8,974	7,820	7,393	6,993	6,763	7,375
Worked 35 hours or more	4,778	6,205	5,462	6,294	6,724	7,326	7,400	7,159	5,656	4,973	4,591	4,299	5,235
Worked 15-34 hours	1,511	1,256	1,604	1,455	1,290	1,871	1,952	1,474	1,700	1,833	1,776	1,725	1,680
Worked 1-14 hours [4]	297	238	365	269	264	262	228	211	243	357	367	392	265
With a job but not at work [5]	189	179	279	140	228	189	116	130	221	231	260	345	196
Males													
Total labor force [3]	45,174	45,515	45,413	45,759	46,613	46,712	46,282	45,337	45,143	45,000	44,721	44,614	45,012
Civilian labor force	43,765	44,099	43,968	44,319	45,163	45,267	44,832	43,886	43,668	43,525	43,229	43,161	43,573
Unemployment	2,472	2,316	2,563	2,233	2,519	2,845	2,598	2,366	2,205	2,433	2,417	2,011	1,411
Employment	41,293	41,783	41,426	42,085	42,644	42,422	42,233	41,521	41,463	41,092	40,812	41,150	42,162
Nonagricultural	35,369	35,484	35,123	35,521	35,549	34,799	34,796	34,411	34,714	34,622	34,689	35,193	35,991
Worked 35 hours or more	30,077	26,629	29,631	20,498	29,277	20,820	29,889	29,813	29,621	29,425	29,425	29,888	31,469
Worked 15-34 hours	3,424	6,922	3,234	12,663	3,080	9,604	3,004	2,766	3,237	3,286	3,199	3,075	2,678
Worked 1-14 hours [4]	884	870	901	810	593	651	629	780	825	802	825	879	763
With a job but not at work [5]	984	1,064	1,359	1,551	2,599	3,723	1,274	1,052	1,032	1,109	1,239	1,352	1,082
Agricultural	5,924	6,299	6,302	6,565	7,095	7,623	7,438	7,109	6,749	6,470	6,123	5,957	6,171
Worked 35 hours or more	4,497	5,335	4,896	5,465	6,019	6,356	6,453	6,249	5,372	4,738	4,344	4,102	4,813
Worked 15-34 hours	1,017	638	910	792	705	916	731	610	1,023	1,294	1,263	1,261	1,046
Worked 1-14 hours [4]	234	152	247	179	161	185	148	134	153	223	270	275	143
With a job but not at work [5]	177	173	249	128	209	168	105	118	201	216	246	318	170
Females													
Total labor force [3]	18,301	18,848	18,608	18,463	18,492	18,566	18,584	18,115	17,184	17,305	17,175	16,932	17,816
Civilian labor force	18,280	18,828	18,588	18,444	18,474	18,548	18,566	18,097	17,167	17,289	17,159	16,917	17,802
Unemployment	1,017	1,093	1,013	1,118	1,170	1,250	1,180	923	811	734	804	653	530
Employment	17,263	17,735	17,575	17,326	17,303	17,298	17,386	17,173	16,356	16,555	16,355	16,264	17,272
Nonagricultural	16,414	16,156	16,167	15,733	15,892	15,274	15,128	15,309	15,285	15,632	15,485	15,458	16,068
Worked 35 hours or more	12,183	10,137	11,723	6,868	11,130	6,866	11,035	11,502	11,140	11,336	11,405	11,426	11,956
Worked 15-34 hours	2,702	4,461	2,822	7,020	2,151	5,097	2,421	2,307	2,676	2,678	2,538	2,458	2,625
Worked 1-14 hours [4]	1,165	1,121	1,127	1,057	916	787	896	998	1,063	1,142	1,051	1,020	1,081
With a job but not at work [5]	365	437	496	788	1,695	2,524	777	502	406	476	491	555	406
Agricultural	849	1,579	1,408	1,593	1,412	2,024	2,258	1,865	1,071	923	870	806	1,204
Worked 35 hours or more	281	870	566	829	705	970	947	910	284	235	247	197	422
Worked 15-34 hours	494	618	694	663	585	955	1,221	864	677	539	513	464	634
Worked 1-14 hours [4]	63	86	118	90	103	77	80	77	90	134	97	117	122
With a job but not at work [5]	12	6	30	12	19	21	11	15	20	15	14	27	26

[1] Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution. All data exclude persons in institutions. Because of rounding, the individual figures do not necessarily add to group totals.

[2] Census survey week contains legal holiday.

[3] Total labor force consists of the civilian labor force and the armed forces.

[4] Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

[5] Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

Source: U. S. Department of Commerce, Bureau of the Census.

TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group[1]

[In thousands]

Industry group and industry	1949												1948	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1948	1947
Total employees	43,667	42,743	42,590	43,466	42,994	42,573	42,835	42,731	42,966	42,918	43,061	43,449	45,282	44,201	43,371
Mining	937	914	893	948	936	943	988	974	994	981	986	991	1,009	961	943
Metal	90.8	85.1	64.8	91.7	93.8	94.5	100.3	101.4	103.1	102.0	101.1	98.2	98.5	98.8	96.8
Iron		30.0	9.2	35.5	36.0	36.4	36.8	36.5	36.5	35.2	35.2	35.1	35.2	35.8	33.1
Copper		21.2	21.2	21.1	21.1	21.2	22.2	22.8	23.2	23.5	22.5	20.0	20.3	22.3	22.5
Lead and zinc		17.3	17.1	18.0	19.0	18.7	21.7	22.4	23.5	23.6	23.5	23.5	23.5	21.7	22.9
Anthracite		76.7	76.2	75.6	75.7	75.3	77.1	77.0	78.3	78.6	79.5	80.5	80.1	80.0	79.4
Bituminous-coal	412.7	402.1	90.8	421.1	424.7	410.1	431.2	438.4	446.4	448.0	455.0	457.5	460.8	444.9	431.8
Crude petroleum and natural gas production		254.7	256.6	260.7	262.9	263.5	261.9	260.1	258.8	257.4	258.3	260.0	263.7	257.5	237.3
Nonmetallic mining and quarrying	94.9	95.5	95.8	98.7	99.1	99.1	97.8	97.5	97.3	94.5	92.5	94.3	99.3	100.1	97.8
Contract construction	2,135	2,248	2,315	2,341	2,340	2,277	2,203	2,137	2,036	1,947	1,926	2,016	2,200	2,185	1,992
Manufacturing	14,007	13,776	13,688	14,312	14,114	13,757	13,884	13,877	14,177	14,475	14,649	14,782	15,174	15,286	15,247
Durable goods[2]	7,314	7,023	6,984	7,409	7,302	7,255	7,392	7,441	7,656	7,819	7,923	8,044	8,258	8,318	8,373
Nondurable goods[2]	6,693	6,753	6,904	6,903	6,812	6,502	6,492	6,436	6,521	6,656	6,726	6,738	6,916	6,970	6,874
Ordnance and accessories	21.3	21.8	22.6	22.7	22.6	23.8	25.3	26.1	27.3	27.9	28.0	28.2	27.9	28.1	26.9
Food and kindred products	1,479	1,540	1,629	1,703	1,718	1,585	1,501	1,436	1,410	1,406	1,414	1,439	1,513	1,536	1,532
Meat products		300.9	293.5	287.7	285.9	284.7	282.7	277.5	274.8	282.6	289.4	296.8	304.8	271.2	275
Dairy products		136.3	142.3	149.9	156.5	162.3	161.6	153.9	146.3	141.4	136.7	134.0	136.3	147.7	148.0
Canning and preserving		183.2	257.0	351.0	369.8	247.3	194.5	156.4	150.1	134.6	133.0	143.7	172.7	222.0	223.5
Grain-mill products		123.7	126.0	123.6	122.5	121.8	119.4	118.7	116.4	117.8	118.9	118.8	119.2	117.7	116.9
Bakery products		285.8	290.7	289.7	288.0	281.9	282.3	276.1	273.9	271.7	278.6	279.8	286.3	282.9	274.9
Sugar		49.6	48.4	30.7	29.9	27.8	26.8	26.7	26.9	27.1	27.4	28.8	35.5	34.5	38.4
Confectionery and related products		109.5	113.6	105.6	92.5	83.7	84.9	87.1	91.5	92.9	96.3	100.5	109.0	100.2	98.5
Beverages		211.1	214.6	222.4	232.6	235.7	210.5	204.4	194.0	205.6	199.6	200.8	213.2	218.6	211.9
Miscellaneous food products		139.9	142.9	142.5	140.2	140.0	138.5	133.5	136.2	132.5	134.2	133.9	136.3	141.3	144.1
Tobacco manufactures	94	95	99	101	98	89	91	90	90	92	95	96	100	100	104
Cigarettes		26.9	26.9	27.0	26.9	27.0	26.9	26.8	26.3	25.8	25.8	26.2	26.6	26.6	26.2
Cigars		45.5	45.7	45.2	44.3	42.9	44.4	43.3	42.9	45.4	45.5	45.3	48.4	48.3	49.4
Tobacco and snuff		12.8	13.1	13.1	13.1	12.5	13.0	12.6	12.8	13.1	13.3	13.7	13.9	13.7	14.8
Tobacco stemming and redrying		10.2	12.9	16.0	14.1	6.7	6.7	6.9	7.5	7.8	10.0	11.2	11.3	11.2	13.0
Textile-mill products	1,269	1,272	1,257	1,220	1,179	1,145	1,170	1,175	1,188	1,240	1,279	1,288	1,324	1,362	1,325
Yarn and thread mills		156.2	153.4	148.5	141.4	135.3	140.7	141.4	142.9	153.1	159.0	162.4	167.2	177.6	179.5
Broad-woven fabric mills		601.5	595.1	577.0	559.8	548.1	555.2	557.1	560.3	589.5	613.4	621.4	637.7	645.7	618.3
Knitting mills		248.0	244.7	237.0	228.7	218.1	220.8	220.1	225.1	228.6	231.8	229.2	237.2	249.0	242.4
Dyeing and finishing textiles		89.6	87.4	85.4	82.6	81.3	83.4	85.4	87.1	87.9	88.4	87.9	89.9	89.8	86.8
Carpets, rugs, other floor coverings		58.1	57.7	55.9	55.3	50.9	56.9	58.5	61.7	63.5	64.6	64.9	65.8	64.8	57.3
Other textile-mill products		118.6	118.3	115.8	111.0	111.1	113.4	112.1	111.3	117.4	121.6	122.6	126.3	135.2	140.9
Apparel and other finished textile products	1,156	1,144	1,199	1,198	1,155	1,055	1,073	1,070	1,121	1,166	1,171	1,129	1,155	1,162	1,130
Men's and boys' suits and coats		133.2	142.2	146.5	143.5	128.8	134.7	131.8	147.3	150.7	152.5	149.2	148.8	154.4	151.2
Men's and boys' furnishings and work clothing		267.7	269.1	264.5	253.1	239.3	253.8	257.4	258.9	260.2	259.0	243.1	254.3	260.1	260.8
Women's outerwear		312.7	342.7	353.1	341.1	296.5	292.1	290.7	322.0	352.3	359.7	349.6	350.2	342.4	336.4
Women's, children's undergarments		108.5	107.3	104.0	98.2	90.8	92.5	94.1	95.1	97.3	97.9	96.8	99.1	97.4	90.8
Millinery		18.4	23.8	24.0	23.1	20.4	17.3	20.3	23.1	25.6	25.5	23.5	21.9	22.9	23.9
Children's outerwear		66.4	68.5	67.9	67.3	63.4	62.3	57.3	58.5	63.0	62.3	59.7	58.7	59.5	53.1
Fur goods and miscellaneous apparel		95.6	98.2	95.5	91.1	84.7	86.4	83.4	83.0	84.4	84.1	81.4	91.5	90.1	83.5
Other fabricated textile products		141.9	146.7	142.2	137.9	131.0	133.7	135.1	133.1	132.3	129.9	126.2	130.7	125.6	121.6
Lumber and wood products (except furniture)	737	750	749	743	747	736	747	733	719	719	714	726	780	812	838
Logging camps and contractors		63.8	64.0	59.5	62.3	62.7	63.8	63.3	58.1	60.3	58.8	58.9	67.2	72.8	81.1
Sawmills and planing mills		440.1	443.1	445.4	444.8	436.8	442.1	430.4	418.8	415.6	408.5	416.9	450.5	472.9	488.3
Millwork, plywood, and prefabricated structural wood products		116.0	113.4	110.1	109.4	106.6	108.4	106.2	108.1	107.9	109.7	112.0	118.4	119.5	113.2
Wooden containers		73.0	72.0	71.7	72.0	71.7	73.7	73.7	73.4	73.5	74.5	76.4	80.0	81.8	87.3
Miscellaneous wood products		57.4	56.7	56.7	58.1	58.0	58.8	59.2	60.3	61.4	62.2	62.1	63.7	65.2	68.4
Furniture and fixtures	329	327	327	319	305	295	298	301	311	316	320	325	330	348	340
Household furniture		232.4	231.1	223.9	212.3	204.0	205.5	207.9	215.9	219.7	223.3	226.9	238.8	247.0	243.9
Other furniture and fixtures		94.1	96.0	95.1	92.5	90.9	92.8	93.2	94.6	95.8	97.0	98.4	100.5	100.9	96.1
Paper and allied products	455	458	456	448	436	429	434	437	442	451	456	463	475	470	465
Pulp, paper, and paperboard mills		229.3	228.1	225.6	219.5	217.8	221.7	223.3	226.2	231.5	233.9	237.4	240.7	240.7	234.0
Paperboard containers and boxes		125.4	124.2	119.4	114.9	110.6	111.4	111.5	113.0	115.0	116.6	119.4	125.8	121.4	122.1
Other paper and allied products		102.8	104.0	102.9	101.2	100.9	100.8	101.9	102.6	104.8	105.9	106.3	109.1	107.6	108.7

See footnotes at end of table.

TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group[1]—Con.

[In thousands]

Industry group and industry	1949												1948	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1948	1947
Manufacturing—Continued															
Printing, publishing, and allied industries	735	733	735	728	719	716	725	722	722	723	726	729	739	725	709
Newspapers		287.5	288.3	286.4	285.2	283.5	283.8	280.8	277.9	276.6	275.0	274.7	276.9	267.5	248.5
Periodicals		52.9	53.2	53.3	52.7	52.2	51.9	53.4	54.1	54.7	54.9	54.8	55.9	54.7	56.5
Books		45.5	45.4	45.1	41.5	41.4	44.8	45.0	45.0	45.1	45.4	45.6	46.1	46.6	48.6
Commercial printing		197.8	199.2	195.0	193.1	195.5	196.4	194.9	195.6	196.0	198.8	201.5	203.0	197.5	191.0
Lithographing		41.5	41.4	40.8	40.2	39.7	40.2	40.6	41.2	41.3	41.0	41.6	43.8	43.1	48.2
Other printing and publishing		108.1	107.8	107.3	106.3	103.8	107.9	107.6	108.4	109.1	110.5	111.1	113.3	113.3	115.6
Chemicals and allied products	657	661	664	654	636	630	642	654	675	691	693	700	709	699	692
Industrial inorganic chemicals		66.4	67.1	65.7	65.7	66.6	66.6	69.0	70.0	70.9	71.1	72.6	72.9	70.9	66.6
Industrial organic chemicals		187.1	185.8	184.7	180.3	181.1	185.0	188.3	195.9	205.7	211.4	212.4	214.1	210.3	205.5
Drugs and medicines		93.2	93.6	92.7	92.0	90.7	91.6	91.1	91.5	91.7	91.8	91.8	90.2	89.5	93.6
Paints, pigments, and fillers		67.6	67.9	66.3	65.8	64.9	66.7	67.3	67.7	68.1	68.7	69.6	69.9	70.7	68.3
Fertilizers		30.3	31.8	32.3	30.4	29.6	30.8	36.4	42.3	43.2	39.8	35.5	33.7	35.9	36.7
Vegetable and animal oils and fats		63.7	65.0	58.8	48.7	46.5	48.5	50.5	54.5	57.0	58.2	60.4	61.0	56.2	55.7
Other chemicals and allied products		152.3	153.1	153.7	153.0	150.1	150.5	151.7	152.9	154.1	152.7	158.1	163.2	165.0	163.3
Products of petroleum and coal	241	245	242	247	247	246	246	246	246	245	246	247	249	250	239
Petroleum refining		196.7	197.6	199.2	200.2	199.9	198.9	198.0	199.1	198.5	199.6	200.4	200.4	199.1	189.3
Coke and byproducts		18.8	13.9	19.3	19.5	19.8	20.5	20.7	20.5	20.4	20.5	20.4	20.4	20.0	18.6
Other petroleum and coal products		29.0	30.4	28.4	27.7	26.3	26.6	27.1	26.1	25.6	25.7	25.8	28.2	30.8	31.2
Rubber products	234	232	233	209	227	224	230	233	238	243	246	251	256	259	270
Tires and inner tubes		103.7	103.5	82.5	103.5	104.9	110.2	111.2	112.8	113.1	113.9	115.9	117.5	121.1	132.4
Rubber footwear		27.0	26.4	25.9	25.2	24.9	24.6	25.2	26.2	26.7	27.8	29.9	31.1	29.6	28.8
Other rubber products		101.5	102.9	100.9	98.3	94.0	95.0	96.9	99.2	103.0	104.6	105.2	107.7	107.9	109.2
Leather and leather products	373	373	390	395	397	383	380	373	389	399	400	396	396	410	409
Leather		49.7	49.4	49.1	48.3	47.4	49.0	49.1	49.6	50.9	51.7	52.6	53.4	54.2	55.7
Footwear (except rubber)		232.9	249.3	255.5	259.4	250.9	247.7	240.2	253.1	259.0	259.7	257.4	253.3	260.1	257.3
Other leather products		90.2	91.1	90.1	89.2	84.3	83.4	83.3	86.1	88.7	88.7	85.6	89.4	95.4	95.5
Stone, clay, and glass products	480	479	478	482	480	469	478	482	484	492	498	504	518	514	501
Glass and glass products		123.2	123.2	122.7	122.2	116.8	121.1	121.6	120.0	123.4	126.2	128.5	133.7	135.9	143.8
Cement, hydraulic		40.6	40.5	42.4	42.5	42.7	42.5	42.0	41.8	41.4	41.6	41.7	42.0	40.9	38.1
Structural clay products		77.0	78.2	79.3	79.5	79.6	80.0	80.1	80.2	80.9	82.0	83.3	86.0	83.4	76.1
Pottery and related products		57.6	57.2	55.8	54.9	51.5	55.3	57.4	59.9	61.2	61.4	61.1	62.7	60.6	58.8
Concrete, gypsum, and plaster products		86.5	86.6	87.1	85.8	83.7	83.3	83.6	82.7	82.8	83.1	85.0	87.3	87.8	81.5
Other stone, clay, and glass products		94.3	92.1	94.6	94.9	94.6	95.4	97.3	99.2	101.9	103.8	104.3	106.3	105.9	102.7
Primary metal industries	1,130	881	706	1,097	1,092	1,095	1,135	1,158	1,195	1,229	1,245	1,257	1,267	1,247	1,231
Blast furnaces, steel works, and rolling mills		383.8	195.0	572.5	572.0	581.3	599.1	610.8	621.9	628.3	628.9	626.1	627.4	612.0	589.0
Iron and steel foundries		195.2	198.1	200.5	208.5	204.4	212.3	214.9	227.3	242.4	248.6	254.9	260.5	259.3	256.8
Primary smelting and refining of nonferrous metals		46.1	47.8	51.0	50.3	51.5	54.0	54.7	56.1	56.0	55.3	55.2	55.2	55.6	55.1
Rolling, drawing, and alloying of nonferrous metals		76.6	85.5	83.0	79.9	78.4	81.1	84.2	88.8	95.3	99.6	102.9	103.8	103.8	111.5
Nonferrous foundries		73.9	76.3	74.0	71.1	70.5	71.9	73.0	75.4	78.2	80.9	85.0	85.8	85.2	85.9
Other primary metal industries		104.9	103.4	116.1	113.1	109.3	116.2	119.9	125.7	129.1	131.5	133.3	133.9	130.7	132.3
Fabricated metal products (except ordnance, machinery, and transportation equipment)	828	821	827	863	843	826	836	843	867	890	917	932	966	976	995
Tin cans and other tinware		43.8	46.1	48.9	49.4	47.7	47.1	44.2	43.8	44.6	44.9	46.2	47.9	48.7	47.7
Cutlery, hand tools, and hardware		139.8	140.1	137.4	135.2	133.1	138.0	140.7	145.2	148.8	152.8	154.5	158.7	154.4	156.5
Heating apparatus (except electric) and plumbers' supplies		130.0	141.2	134.6	124.5	117.4	118.6	123.3	129.4	134.5	139.7	145.2	159.1	165.8	174.3
Fabricated structural metal products		178.4	172.0	202.1	201.8	201.1	202.6	202.3	204.0	206.8	210.5	212.5	216.6	215.9	206.7
Metal stamping, coating, and engraving		141.5	148.2	151.6	146.6	142.9	142.5	140.2	145.7	151.0	157.1	159.9	165.4	172.2	180.4
Other fabricated metal products		178.2	179.0	188.2	185.1	184.2	187.3	191.8	199.1	204.6	211.5	213.8	217.9	219.0	229.1
Machinery (except electrical)	1,220	1,208	1,222	1,236	1,229	1,241	1,285	1,327	1,385	1,431	1,458	1,481	1,509	1,533	1,535
Engines and turbines		66.4	64.5	67.6	66.9	69.0	71.8	73.0	77.5	80.1	81.9	83.0	83.7	83.8	83.9
Agricultural machinery and tractors		162.4	166.0	178.9	179.4	178.7	183.7	187.1	190.0	192.5	193.8	194.6	194.9	191.3	178.9
Construction and mining machinery		89.2	90.6	88.8	91.1	95.6	101.9	106.0	111.4	114.8	116.5	118.6	120.4	122.6	120.2
Metalworking machinery		195.3	197.8	199.1	197.4	198.2	205.8	212.8	219.0	223.2	226.3	232.9	237.9	239.8	248.3
Special-industry machinery (except metalworking machinery)		156.7	158.8	161.5	161.8	163.8	169.3	175.6	181.6	188.4	192.0	195.0	197.5	201.9	204.4
General industrial machinery		172.8	175.2	177.6	177.9	179.7	184.0	189.2	194.5	200.2	204.3	207.1	209.3	209.8	208.6
Office and store machines and devices		87.5	88.7	88.5	86.8	87.8	89.7	90.5	91.3	94.8	97.1	98.1	101.9	109.1	108.2
Service-industry and household machines		139.0	136.2	130.2	126.0	126.4	133.2	136.9	138.8	167.0	169.1	172.5	180.8	191.3	184.8
Miscellaneous machinery parts		139.0	143.9	143.5	141.3	142.2	145.3	153.6	161.1	169.9	176.6	179.6	182.1	183.4	197.3
Electrical machinery	788	780	753	734	712	712	725	746	770	795	818	834	853	869	918
Electrical generating, transmission, distribution, and industrial apparatus		288.9	289.6	286.8	281.9	280.6	284.2	292.9	303.2	310.1	314.8	314.8	321.3	332.9	343.5
Electrical equipment for vehicles		59.0	65.9	65.4	63.4	62.1	62.0	63.4	64.2	67.2	67.6	68.2	69.3	69.0	74.3
Communication equipment		276.4	271.1	257.9	250.2	253.7	261.0	266.0	270.7	278.4	291.0	302.7	311.3	312.2	336.2
Electrical appliances, lamps, and miscellaneous products		125.7	126.8	124.0	116.5	115.4	117.9	123.3	131.7	139.2	144.4	148.0	150.8	154.8	164.0

See footnotes at end of table.

TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group[1]—Con.

[In thousands]

Industry group and industry	1949												1948	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1948	1947
Manufacturing—Continued															
Transportation equipment	1,139	1,095	1,207	1,240	1,224	1,242	1,224	1,183	1,242	1,248	1,245	1,267	1,282	1,263	1,263
Automobiles		683.3	789.0	810.2	807.0	799.0	773.6	726.9	777.9	773.6	772.5	794.0	803.7	792.8	776.2
Aircraft and parts		248.8	255.4	258.3	252.2	259.6	253.7	274.1	259.3	279.4	256.0	254.9	252.2	228.1	228.6
Aircraft		163.1	168.8	171.2	171.7	172.8	169.3	169.8	171.0	171.0	168.9	168.5	168.3	151.7	151.4
Aircraft engines and parts		51.3	52.1	52.4	46.2	52.3	53.1	53.8	53.0	52.8	52.2	52.1	50.4	46.7	47.8
Aircraft propellers and parts		8.1	8.2	8.2	8.0	8.2	8.1	7.8	7.7	7.7	7.6	7.6	7.7	7.4	7.4
Other aircraft parts and equipment		26.3	26.3	26.5	26.3	26.3	23.2	22.7	27.6	27.9	27.3	26.7	26.8	22.4	22.0
Ship and boat building and repairing		85.9	82.8	88.6	94.6	100.6	103.7	108.2	109.0	113.6	116.4	118.1	123.3	140.7	150.4
Ship building and repairing[4]		75.4	72.5	77.9	83.3	88.8	91.3	95.1	95.9	100.3	102.2	103.7	109.0	124.2	137.3
Railroad equipment		65.2	68.0	71.2	59.3	73.3	81.2	83.0	84.6	87.5	88.2	87.6	88.0	84.8	81.4
Other transportation equipment		11.7	12.0	11.4	10.5	9.3	9.6	10.5	11.1	11.5	11.5	12.3	13.0	16.6	17.0
Instruments and related products	234	234	235	233	230	231	236	238	242	245	246	251	258	260	265
Ophthalmic goods		25.7	25.8	26.0	26.2	26.2	27.0	27.3	27.7	28.0	28.1	28.0	28.2	28.2	30.1
Photographic apparatus		48.9	49.7	49.5	50.1	51.2	53.0	53.8	55.6	56.1	56.7	57.7	59.1	60.3	61.6
Watches and clocks		31.9	32.2	31.7	30.6	29.4	30.6	30.6	31.1	31.6	32.0	33.8	37.6	40.8	41.3
Professional and scientific instruments		127.5	126.8	125.8	123.3	123.7	125.8	126.3	128.0	129.0	129.4	131.7	133.3	130.8	131.9
Miscellaneous manufacturing industries	438	456	457	439	417	384	403	404	414	426	434	439	438	466	461
Jewelry, silverware, and plated ware		57.1	57.1	54.9	52.5	49.0	53.4	54.3	55.7	57.1	58.5	58.7	60.5	60.3	58.1
Toys and sporting goods		76.2	76.8	72.3	70.3	63.8	65.3	65.6	66.5	66.4	67.0	66.9	73.2	80.8	80.0
Costume jewelry, buttons, notions		63.5	64.5	62.9	58.1	52.8	51.6	50.1	53.3	57.8	60.0	59.4	61.7	62.3	61.0
Other miscellaneous manufacturing industries		258.7	258.6	248.5	236.4	218.0	232.6	233.5	238.6	244.9	248.7	254.1	262.4	262.8	262.3
Transportation and public utilities	3,907	3,893	3,879	3,939	3,992	4,007	4,051	4,021	3,991	3,975	4,024	4,054	4,139	4,151	4,122
Transportation	2,709	2,690	2,665	2,739	2,760	2,771	2,800	2,792	2,761	2,745	2,795	2,820	2,928	2,934	2,884
Interstate railroads		1,283	1,258	1,339	1,375	1,381	1,410	1,416	1,387	1,370	1,414	1,440	1,504	1,517	1,557
Class I railroads		1,114	1,090	1,166	1,202	1,208	1,230	1,237	1,215	1,198	1,231	1,255	1,306	1,327	1,352
Local railways and bus lines		154	156	157	157	158	159	159	161	160	161	161	162	163	165
Trucking and warehousing		571	568	555	539	537	540	532	532	538	544	549	571	566	551
Other transportation and services		682	683	688	689	695	691	685	681	677	676	679	691	687	692
Communication	659	665	669	676	685	691	691	695	696	700	701	699	702	696	646
Telephone		615.5	618.5	624.7	632.9	638.2	636.6	639.1	641.1	643.5	643.8	640.6	643.6	634.2	581.1
Telegraph		48.2	49.4	50.1	51.6	52.3	53.1	54.5	55.4	55.3	56.0	56.9	57.8	60.8	63.4
Other public utilities	539	538	538	544	547	545	540	534	532	530	528	526	528	521	492
Gas and electric utilities		513.6	513.6	518.7	521.4	520.0	515.2	509.3	507.0	504.9	504.2	502.9	504.9	497.0	469.5
Local utilities		24.8	24.7	24.9	25.3	25.0	24.8	24.4	24.8	24.6	22.4	23.5	23.4	23.7	22.6
Trade	10,118	9,597	9,496	9,409	9,213	9,220	9,336	9,343	9,475	9,310	9,292	9,388	10,273	9,491	9,198
Wholesale trade	2,538	2,538	2,551	2,538	2,515	2,472	2,491	2,482	2,504	2,523	2,541	2,559	2,595	2,533	2,410
Retail trade	7,580	7,059	6,945	6,871	6,698	6,748	6,845	6,860	6,974	6,787	6,751	6,829	7,678	6,958	6,785
General merchandise stores	1,986	1,589	1,490	1,432	1,337	1,356	1,401	1,434	1,515	1,411	1,386	1,423	1,990	1,470	1,389
Food and liquor stores	1,221	1,208	1,201	1,192	1,181	1,201	1,208	1,203	1,204	1,193	1,184	1,186	1,208	1,195	1,161
Automotive and accessories dealers	713	703	696	692	688	679	670	661	658	648	647	653	668	634	581
Apparel and accessories stores	620	552	548	542	486	507	553	564	616	548	534	554	670	577	547
Other retail trade	3,040	3,007	3,010	3,013	3,006	3,005	3,013	2,998	2,981	2,987	3,000	3,013	3,142	3,081	3,068
Finance	1,771	1,767	1,768	1,771	1,780	1,780	1,774	1,763	1,757	1,749	1,735	1,731	1,724	1,716	1,641
Banks and trust companies		415	415	417	422	422	417	413	413	415	413	410	409	403	380
Security dealers and exchanges		55.1	55.0	55.0	55.4	55.7	55.3	55.3	55.4	55.9	56.3	56.5	58.9	57.9	60.
Insurance carriers and agents		629	627	627	628	624	616	612	613	611	606	602	602	580	549
Other finance agencies and real estate		668	671	672	675	678	686	683	676	667	660	662	656	663	652
Service	4,741	4,767	4,794	4,833	4,836	4,851	4,834	4,804	4,788	4,720	4,712	4,723	4,737	4,799	4,786
Hotels and lodging places		444	451	475	504	511	487	464	451	445	447	447	461	478	497
Laundries		347.3	350.1	355.8	358.0	364.0	361.0	352.6	347.3	346.2	346.4	350.5	349.6	356.1	364.8
Cleaning and dyeing plants		144.6	147.3	146.9	144.2	150.6	154.1	153.1	149.5	143.5	142.0	143.6	145.3	149.9	153.7
Motion pictures		238	238	236	238	239	240	238	237	235	234	236	238	241	252
Government	6,061	5,783	5,866	5,893	5,783	5,738	5,803	5,813	5,775	5,761	5,737	5,764	5,994	5,813	5,434
Federal	2,121	1,823	1,863	1,892	1,900	1,905	1,909	1,898	1,885	1,877	1,877	1,875	2,161	1,827	1,574
State and local	3,940	3,960	4,003	4,001	3,883	3,833	3,894	3,915	3,890	3,884	3,860	3,889	3,833	3,786	3,860

[1] The Bureau of Labor Statistics' series of employment in nonagricultural establishments are based upon reports submitted by cooperating establishments and, therefore, differ from employment information obtained by household interviews, such as the Monthly Report on the Labor Force (table A-1), in several important respects. The Bureau of Labor Statistics' data cover all full- and part-time employees in private nonagricultural establishments who worked during, or received pay for, the pay period ending nearest the 15th of the month; in Federal establishments during the pay period ending just before the first of the month; and in State and local government during the pay period ending on or just before the last of the month, while the Monthly Report on the Labor Force data relate to the calendar week which contains the 8th day of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded from the BLS but not the MRLF series. These employment series have been adjusted to levels indicated by Unemployment Insurance Agencies and the Bureau of Old-Age and Survivors Insurance data through 1947, and have been carried forward from 1947 bench-mark levels, thereby providing consistent series. Comparable data prior to 1947 for industry divisions only, are available upon request.

[2] Includes ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

[3] Includes food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; and leather and leather products.

[4] Data by region, from January 1940, are available upon request to the Bureau of Labor Statistics.

TABLE A–3: Production Workers in Mining and Manufacturing Industries [1]

[In thousands]

Industry group and industry	1949												1948	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1948	1947
Mining:															
Metal	-------	75.0	54.0	80.9	82.8	83.3	89.5	90.9	92.7	92.0	91.0	88.3	88.5	88.6	87.5
Iron	-------	27.0	6.0	32.2	32.6	32.8	33.4	33.1	33.2	32.0	32.0	31.9	32.2	32.6	30.5
Copper	-------	18.8	18.8	18.6	18.6	18.8	19.8	20.5	20.9	21.2	20.2	17.9	18.1	20.0	20.1
Lead and zinc	-------	15.6	14.7	15.6	16.5	16.1	19.1	19.8	21.0	21.1	21.0	21.0	20.9	19.2	20.7
Anthracite	-------	72.1	71.6	71.1	71.2	71.0	72.7	72.9	73.9	74.3	75.1	76.1	75.9	75.8	74.6
Bituminous coal	-------	372.7	77.1	395.0	399.7	383.1	404.5	411.7	419.6	421.6	428.2	430.5	434.5	419.1	407.7
Crude petroleum and natural gas production:															
Petroleum and natural gas production	-------	124.5	126.2	128.7	131.6	131.1	130.0	126.5	125.7	125.7	125.9	125.7	127.0	127.1	120.0
Nonmetallic mining and quarrying	-------	82.6	83.1	85.8	86.0	85.8	85.9	85.6	85.4	82.0	80.4	81.9	87.2	87.6	86.0
Manufacturing	11,482	11,236	11,367	11,775	11,861	11,211	11,337	11,334	11,616	11,904	12,074	12,201	12,578	12,717	12,794
Durable goods	5,971	5,689	5,653	6,060	5,947	5,894	6,022	6,037	6,282	6,417	6,523	6,640	6,945	6,909	7,010
Nondurable goods	5,511	5,547	5,714	5,715	5,614	5,317	5,315	5,297	5,334	5,487	5,551	5,561	5,733	5,808	5,784
Ordnance and accessories	16.9	17.3	18.1	18.2	18.2	19.3	20.7	21.3	22.5	23.2	23.3	23.6	23.6	23.9	22.5
Food and kindred products	1,125	1,182	1,271	1,340	1,350	1,224	1,153	1,095	1,071	1,069	1,073	1,097	1,171	1,197	1,216
Meat products	-------	242.8	236.3	230.4	228.5	227.2	225.6	220.6	217.4	225.5	230.9	229.7	247.2	215.8	223.9
Dairy products	-------	98.8	103.9	110.4	116.3	122.1	122.1	115.3	107.8	103.3	100.0	98.6	100.3	111.0	115.2
Canning and preserving	-------	157.9	231.0	321.5	339.1	220.1	169.0	130.9	125.0	109.9	108.3	118.2	146.7	195.3	198.2
Grain-mill products	-------	97.4	100.6	98.0	96.9	96.8	94.3	93.8	91.5	93.0	93.4	93.9	94.1	93.6	94.1
Bakery products	-------	193.8	198.8	196.4	194.1	190.5	191.7	187.8	186.0	185.3	188.6	190.0	196.4	195.5	194.0
Sugar	-------	44.7	43.7	26.7	25.7	23.7	22.8	22.6	22.7	22.9	23.5	24.8	31.1	30.0	33.9
Confectionery and related products	-------	95.3	99.2	91.5	78.7	69.9	71.1	73.6	77.8	79.3	82.4	86.4	94.7	85.9	84.0
Beverages	-------	145.8	148.7	157.3	164.7	168.5	152.4	148.0	140.1	149.4	144.5	145.6	156.9	161.4	161.1
Miscellaneous food products	-------	105.9	108.9	107.8	105.8	105.2	104.0	102.7	102.7	100.2	101.2	99.8	103.3	108.1	111.3
Tobacco manufactures	88	89	92	94	91	82	84	82	82	85	88	90	93	93	96
Cigarettes	-------	24.4	24.4	24.5	24.4	24.4	24.3	24.3	23.8	23.5	23.4	23.9	24.3	24.3	23.8
Cigars	-------	43.6	43.6	43.1	42.3	40.9	42.4	41.3	40.9	43.3	43.4	43.2	46.3	46.2	47.2
Tobacco and snuff	-------	11.4	11.7	11.6	11.7	11.0	11.4	11.0	11.3	11.6	11.9	12.2	12.3	12.2	13.0
Tobacco stemming and redrying	-------	9.2	11.9	14.9	12.9	5.7	5.6	5.8	6.4	6.8	9.1	10.2	10.3	10.2	12.1
Textile-mill products	1,183	1,185	1,169	1,132	1,092	1,058	1,083	1,087	1,100	1,150	1,190	1,200	1,236	1,275	1,243
Yarn and thread mills	-------	147.0	144.5	139.5	133.0	126.6	131.9	132.6	133.7	143.6	149.9	153.1	158.1	168.5	170.6
Broad-woven fabric mills	-------	572.0	564.8	547.0	530.1	518.0	524.7	526.4	529.5	558.3	582.1	590.4	607.1	615.3	590.2
Knitting mills	-------	229.9	226.6	219.2	210.8	199.7	202.9	202.3	206.8	210.5	213.9	211.5	219.7	231.4	226.2
Dyeing and finishing textiles	-------	80.0	78.1	76.0	73.2	71.9	74.0	76.2	77.7	78.3	78.9	78.0	80.2	80.4	78.3
Carpets, rugs, other floor coverings	-------	50.5	49.9	48.1	47.5	43.5	49.2	50.8	53.9	55.8	56.9	57.3	58.0	57.2	50.5
Other textile-mill products	-------	105.2	105.1	102.6	97.7	97.9	100.5	98.9	98.5	103.9	108.5	109.6	113.1	121.7	127.2
Apparel and other finished textile products	1,038	1,029	1,082	1,082	1,040	942	959	956	1,008	1,051	1,055	1,015	1,040	1,049	1,028
Men's and boys' suits and coats	-------	119.9	129.0	133.4	130.6	115.9	121.5	117.7	133.7	137.3	138.7	135.4	134.7	140.1	138.4
Men's and boys' furnishings and work clothing	-------	250.0	251.1	246.2	235.4	221.4	236.3	239.1	241.0	242.0	240.6	223.4	235.9	250.7	252.3
Women's outerwear	-------	278.9	308.1	318.5	306.3	263.3	257.6	257.0	288.5	317.7	324.1	314.3	315.2	308.7	305.4
Women's, children's undergarments	-------	98.4	97.5	94.1	88.6	81.7	83.5	84.5	85.5	87.7	90.0	87.6	90.3	88.7	83.3
Millinery	-------	15.6	20.8	21.2	20.3	17.7	14.7	17.6	20.5	22.8	22.6	20.6	19.1	20.2	21.1
Children's outerwear	-------	60.7	63.0	62.3	61.9	58.4	57.3	52.4	53.4	57.7	57.0	54.5	53.6	54.7	49.1
Fur goods and miscellaneous apparel	-------	84.1	86.4	83.8	79.3	72.9	74.5	71.8	71.1	72.8	72.5	70.5	79.4	78.5	73.0
Other fabricated textile products	-------	121.3	125.7	122.0	117.8	110.8	113.9	115.4	113.8	112.7	110.7	106.8	111.7	107.5	105.5
Lumber and wood products (except furniture)	678	690	689	684	686	676	686	672	659	659	655	667	720	752	777
Logging camps and contractors	-------	59.6	59.8	55.3	58.6	58.7	60.1	59.7	54.5	56.6	55.4	55.5	63.8	69.5	77.7
Sawmills and planing mills	-------	411.3	413.4	416.0	414.5	407.1	410.3	398.5	388.6	384.8	379.5	386.9	420.3	442.0	455.4
Millwork, plywood, and prefabricated structural wood products	-------	100.5	98.2	95.4	94.6	91.9	93.7	91.9	93.6	93.5	95.3	97.5	103.6	105.0	100.0
Wooden containers	-------	67.4	66.8	66.4	66.6	66.3	68.5	68.4	68.3	68.2	68.8	70.9	74.3	76.0	81.8
Miscellaneous wood products	-------	51.5	50.9	51.0	52.1	51.9	53.0	53.3	54.2	55.5	56.2	56.1	57.7	59.2	62.4
Furniture and fixtures	285	283	284	277	263	253	257	259	268	274	278	284	297	306	300
Household furniture	-------	206.6	205.6	198.8	187.0	179.3	181.1	183.0	190.5	194.7	198.3	202.1	213.3	221.6	219.7
Other furniture and fixtures	-------	76.6	78.4	77.7	75.8	74.1	75.9	76.4	77.4	78.9	80.0	81.5	84.1	84.1	80.0

See footnote at end of table.

TABLE A–3: Production Workers in Mining and Manufacturing Industries[1]—Continued

[In thousands]

Industry group and industry	1949												1948	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1948	1947
Manufacturing—Continued															
Paper and allied products	391	393	392	384	371	365	369	372	377	386	391	398	409	403	406
Pulp, paper, and paperboard mills		200.6	199.6	197.0	190.5	188.2	191.7	193.6	196.3	201.4	204.2	207.7	210.4	210.8	206.9
Paperboard containers and boxes		107.6	106.4	101.9	97.4	93.3	94.2	94.3	95.6	97.7	99.1	102.0	108.0	104.6	107.4
Other paper and allied products		84.8	85.8	84.8	83.4	83.1	83.3	84.2	84.7	86.8	87.9	88.2	90.3	89.4	91.1
Printing, publishing, and allied industries	501	499	500	495	488	485	494	494	498	496	497	500	509	501	497
Newspapers		144.0	144.4	143.8	141.4	140.9	141.9	141.0	139.5	138.8	138.7	138.0	139.3	133.5	128.4
Periodicals		34.9	35.7	35.8	35.6	33.2	35.0	36.6	36.9	37.4	37.1	37.2	36.9	37.3	38.7
Books		36.5	36.5	36.3	33.9	33.8	37.1	37.2	37.2	37.3	37.6	37.7	38.1	38.6	40.4
Commercial printing		164.8	166.1	162.4	160.7	162.4	163.8	162.3	163.1	163.7	166.4	168.6	169.7	165.5	161.0
Lithographing		32.5	32.4	31.8	31.2	30.8	31.1	31.5	32.3	32.1	31.6	32.2	34.3	33.1	38.2
Other printing and publishing		85.2	85.1	84.5	83.5	82.1	85.4	85.5	85.5	86.2	87.4	88.0	90.4	91.0	93.2
Chemicals and allied products	482	485	488	478	458	453	464	476	495	511	513	519	526	520	523
Industrial inorganic chemicals		51.2	51.6	49.9	49.8	50.7	52.3	52.6	53.4	54.6	55.0	55.6	56.0	54.7	51.9
Industrial organic chemicals		142.9	141.4	139.8	135.2	135.8	139.1	141.8	148.1	157.4	161.7	163.2	165.3	164.4	162.6
Drugs and medicines		61.5	61.6	60.7	60.1	59.2	59.9	59.8	60.5	61.2	61.5	61.5	60.2	59.9	63.9
Paints, pigments, and fillers		43.7	44.0	42.3	41.8	41.0	42.6	43.4	43.7	44.0	44.5	45.3	46.0	46.9	45.9
Fertilizers		24.5	26.0	26.6	24.7	24.0	24.9	30.7	36.6	37.6	33.1	29.9	28.0	30.2	31.4
Vegetable and animal oils and fats		53.2	54.6	49.1	38.5	36.3	38.7	40.4	44.4	47.1	48.1	50.4	52.8	46.6	46.9
Other chemicals and allied products		108.2	109.1	109.1	108.0	105.7	106.3	107.3	108.7	109.5	108.7	113.4	117.8	117.6	120.7
Products of petroleum and coal	184	187	185	189	190	189	189	188	188	187	188	187	189	192	184
Petroleum refining		147.5	148.4	149.2	149.9	150.3	149.6	148.8	148.8	149.3	149.5	149.1	149.1	148.9	141.5
Coke and byproducts		15.9	11.2	16.7	17.0	17.3	18.0	18.1	17.9	17.9	17.8	17.9	17.6	17.5	18.9
Other petroleum and coal products		24.0	25.3	23.5	22.9	21.4	21.6	21.8	20.9	20.2	20.2	20.0	22.5	25.3	26.3
Rubber products	186	186	186	167	180	177	181	185	190	194	197	201	206	209	220
Tires and inner tubes		81.3	81.1	64.3	80.9	82.0	86.3	87.2	88.6	88.6	89.4	91.3	92.7	96.2	103.8
Rubber footwear		22.2	21.5	21.1	20.3	20.2	19.8	20.5	21.4	21.9	22.9	24.8	25.9	24.6	23.9
Other rubber products		82.0	83.3	81.4	78.6	74.8	75.3	77.2	79.6	83.1	83.1	85.3	87.2	88.1	89.9
Leather and leather products	333	332	349	354	356	342	339	332	348	358	359	354	354	368	372
Leather		45.2	44.9	44.6	43.8	43.1	44.5	44.5	45.0	46.3	47.1	47.8	48.6	49.5	51.5
Footwear (except rubber)		208.4	224.3	230.2	234.2	226.3	222.5	215.7	227.8	234.4	234.5	232.5	227.5	234.8	235.5
Other leather products		78.4	80.2	78.8	77.5	73.0	72.1	72.2	74.9	77.4	77.3	74.1	77.8	83.5	84.8
Stone, clay, and glass products	412	411	411	414	412	400	409	414	416	423	429	436	431	448	438
Glass and glass products		107.7	107.5	106.9	106.6	101.1	103.4	105.9	104.5	107.4	109.5	112.1	117.3	119.6	126.9
Cement, hydraulic		34.8	34.8	35.5	36.7	36.9	36.6	36.2	36.0	35.7	35.8	35.9	36.4	35.5	33.0
Structural clay products		69.7	71.0	72.1	72.1	72.1	72.8	72.8	72.9	73.4	74.5	73.8	78.7	76.5	70.2
Pottery and related products		52.2	51.7	50.4	49.7	46.3	50.2	52.3	54.6	55.7	56.1	55.9	57.4	55.5	54.1
Concrete, gypsum, and plaster products		74.1	74.5	74.9	73.5	71.5	71.2	71.2	70.3	70.7	71.1	72.9	75.4	76.4	71.5
Other stone, clay, and glass products		72.7	71.1	72.8	72.9	72.1	73.2	75.7	77.5	80.5	81.9	83.1	85.3	84.6	82.4
Primary metal industries	973	731	562	938	932	934	971	991	1,028	1,062	1,077	1,090	1,101	1,083	1,073
Blast furnaces, steel works, and rolling mills		314.7	134.1	498.7	497.6	505.8	523.0	533.9	543.4	551.7	552.8	550.3	550.8	536.8	517.6
Iron and steel foundries		168.8	171.4	173.4	177.3	175.9	184.0	186.3	198.4	213.5	219.2	225.8	231.8	230.9	229.4
Primary smelting and refining of nonferrous metals		38.2	39.3	41.8	41.4	42.3	44.9	45.4	46.8	46.6	45.8	45.8	46.3	46.8	46.9
Rolling, drawing, and alloying of nonferrous metals		62.3	70.0	67.2	63.8	62.4	64.4	67.3	71.4	77.9	82.3	83.4	86.3	86.0	93.3
Nonferrous foundries		62.4	64.1	62.0	59.5	58.7	59.5	59.9	62.2	65.3	68.2	72.0	73.4	73.2	74.4
Other primary metal industries		84.8	83.4	95.1	92.4	88.4	95.2	98.2	103.9	107.3	109.0	111.0	111.9	109.1	111.3
Fabricated metal products (except ordnance, machinery, and transportation equipment)	678	666	676	708	688	671	679	683	706	729	752	767	801	812	837
Tin cans and other tinware		38.2	40.4	43.2	43.6	41.8	41.0	38.3	37.9	38.5	38.7	40.2	41.9	42.2	41.0
Cutlery, hand tools, and hardware		116.2	116.3	113.7	111.4	109.2	113.8	116.7	120.6	124.7	128.4	130.5	134.7	131.6	134.8
Heating apparatus (except electric) and plumbers' supplies		113.4	116.2	109.6	99.7	91.8	93.6	97.2	103.0	107.8	112.3	117.2	130.7	137.1	146.0
Fabricated structural metal products		132.9	128.2	155.8	155.4	155.0	156.0	155.8	157.3	159.9	162.5	164.5	169.2	168.7	164.6
Metal stamping, coating, and engraving		119.7	126.9	129.8	124.9	121.5	120.7	117.9	123.3	128.4	134.3	136.4	142.1	148.6	156.3
Other fabricated metal products		145.7	147.9	156.1	152.5	151.5	154.3	157.3	164.0	169.7	178.2	178.5	182.8	183.8	193.9
Machinery (except electrical)	921	908	922	935	927	939	977	1,014	1,066	1,108	1,133	1,155	1,179	1,203	1,217
Engines and turbines		48.4	46.7	49.3	49.0	50.7	53.2	56.4	58.7	60.9	61.9	63.1	63.5	63.9	65.3
Agricultural machinery and tractors		124.7	127.8	139.9	140.4	139.8	145.2	148.0	150.5	152.8	153.7	155.1	155.3	151.7	140.3
Construction and mining machinery		62.3	63.8	62.3	64.2	67.7	72.5	76.0	80.3	83.6	85.3	87.3	88.6	91.1	90.4
Metalworking machinery		145.9	148.0	149.1	146.9	149.5	155.8	161.1	167.1	171.2	174.5	179.1	183.1	186.6	194.1
Special-industry machinery (except metalworking machinery)		117.5	119.2	121.8	122.6	124.0	129.2	134.9	140.2	146.0	149.0	151.7	154.3	158.6	163.0
General industrial machinery		121.3	123.2	124.8	124.5	125.3	129.3	134.4	139.0	144.5	148.7	151.4	153.4	154.3	156.4
Office and store machines and devices		72.2	73.5	73.3	71.7	72.5	74.7	75.3	76.1	79.4	81.6	82.8	85.8	90.0	92.4
Service-industry and household machines		109.1	107.9	101.9	98.3	98.5	104.5	107.5	127.2	134.6	136.7	140.1	147.2	156.3	152.2
Miscellaneous machinery parts		106.8	112.3	112.1	109.8	110.6	112.6	120.6	127.3	135.3	141.1	144.4	146.2	147.5	161.0

See footnote at end of table.

TABLE A–3: Production Workers in Mining and Manufacturing Industries[1]—Continued

[In thousands]

Industry group and industry	1949												1948	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1948	1947
Manufacturing—Continued															
Electrical machinery	552	547	549	531	507	503	518	538	560	585	607	623	643	556	706
Electrical generating, transmission, distribution, and industrial apparatus	.....	202.0	202.7	200.8	196.5	195.6	200.1	209.1	219.5	227.0	232.7	234.2	240.3	251.4	262.7
Electrical equipment for vehicles	.....	43.7	50.5	49.6	47.0	45.8	46.3	48.1	49.1	52.0	52.6	53.4	54.5	54.6	59.7
Communication equipment	.....	201.5	194.7	182.4	173.4	175.5	181.4	185.4	188.7	195.7	207.2	217.4	226.7	234.4	249.1
Electrical appliances, lamps, and miscellaneous products	.....	99.3	101.0	97.9	90.1	88.4	90.6	95.1	103.0	110.1	114.6	118.4	122.2	125.5	134.8
Transportation equipment	920	881	985	1,017	998	1,014	998	955	1,012	1,017	1,021	1,038	1,048	1,031	1,038
Automobiles	.....	567.8	665.1	686.3	678.0	669.5	646.1	600.5	648.8	646.1	648.9	664.6	670.3	657.6	648.8
Aircraft and parts	.....	181.0	187.9	190.7	185.3	192.4	187.1	186.8	192.1	192.4	190.0	189.5	186.1	166.6	167.2
Aircraft	.....	119.4	125.4	127.6	128.6	129.5	127.2	126.7	128.0	128.2	126.6	126.8	125.4	111.5	110.9
Aircraft engines and parts	.....	36.8	37.6	37.9	31.9	37.9	38.8	39.0	38.6	38.4	37.9	37.8	36.3	33.6	35.0
Aircraft propellers and parts	.....	5.4	5.5	5.5	5.2	5.5	5.4	5.2	5.1	5.1	5.0	5.0	5.1	4.9	4.9
Other aircraft parts and equipment	.....	19.4	19.4	19.7	19.6	19.5	16.0	15.6	20.4	20.7	20.4	19.9	19.3	16.6	16.4
Ship and boat building and repairing	.....	71.8	68.5	74.0	79.5	85.5	88.2	92.3	93.0	97.6	100.1	101.5	106.3	123.2	140.6
Ship building and repairing	.....	63.3	60.2	65.4	70.4	75.7	77.8	81.3	82.0	86.4	88.2	89.4	94.3	109.3	121.7
Railroad equipment	.....	50.6	53.0	56.2	46.5	58.5	63.6	67.4	68.8	71.5	72.1	71.6	72.3	69.6	66.6
Other transportation equipment	.....	10.2	10.5	9.9	8.8	7.7	7.8	8.7	9.1	9.5	9.6	10.3	12.9	14.5	15.1
Instruments and related products	173	174	174	172	169	170	176	177	181	183	185	190	196	200	207
Ophthalmic goods	.....	20.9	20.8	21.0	21.1	21.2	22.1	22.5	22.9	23.1	23.3	23.1	23.3	23.8	25.8
Photographic apparatus	.....	35.4	35.8	35.3	36.0	37.5	38.7	39.5	41.2	41.3	42.0	42.9	44.5	45.4	46.5
Watches and clocks	.....	27.2	27.6	27.1	26.0	25.0	26.0	26.0	26.2	26.4	26.7	28.4	32.0	35.0	35.7
Professional and scientific instruments	.....	90.1	89.4	88.3	86.3	86.7	88.7	89.4	90.5	91.8	93.4	95.1	96.5	95.4	99.1
Miscellaneous manufacturing industries	362	381	383	366	347	313	333	333	343	354	362	366	385	394	394
Jewelry, silverware, and plated ware	.....	46.7	46.7	44.6	42.2	39.1	43.1	43.9	45.2	46.5	47.8	48.0	49.3	49.6	47.9
Toys and sporting goods	.....	67.1	67.6	63.4	61.3	54.9	56.6	56.8	58.0	57.8	58.1	57.8	64.0	71.5	71.5
Costume jewelry, buttons, notions	.....	53.1	53.8	52.2	48.5	43.8	42.3	41.0	44.1	48.6	51.9	51.5	53.4	53.9	53.5
Other miscellaneous manufacturing industries	.....	213.7	214.7	205.5	194.5	175.2	190.5	191.5	195.9	201.3	204.9	209.1	218.6	219.4	220.9

[1] Data are based upon reports from cooperating establishments covering both full- and part-time production and related workers who worked during, or received pay for, the pay period ending nearest the 15th of the month. Data have been adjusted to levels indicated by Unemployment Insurance Agencies and the Bureau of Old-Age and Survivors' Insurance data through 1947 and have been carried forward from 1947 bench-mark levels, thereby providing consistent series. Comparable data from January 1947 are available upon request to the Bureau of Labor Statistics. Such requests should specify the series for which data are desired. Revised data in all except the first *three* columns will be identified by an asterisk for the first month's publication of such data.

TABLE A–4: Indexes of Production-Worker Employment and Weekly Pay Rolls in Manufacturing Industries[1]

[1939 average=100]

Period	Employment	Weekly pay roll	Period	Employment	Weekly pay roll	Period	Employment	Weekly pay roll
1939: Average	100.0	100.0	1947: Average	156.2	326.9	1949: June	138.4	315.7
1940: Average	107.5	113.6	1948: Average	155.2	351.4	July	136.9	312.8
1941: Average	132.8	164.9	1948: December	153.5	360.7	August	141.1	323.0
1942: Average	156.9	241.5	1949: January	148.9	345.9	September	143.7	335.1
1943: Average	183.3	331.1	February	147.4	340.4	October	138.8	320.8
1944: Average	178.3	343.7	March	145.3	332.8	November	137.4	313.5
1945: Average	157.0	293.5	April	141.8	319.2	December	140.2	.....
1946: Average	147.8	271.1	May	138.2	312.8			

[1] See footnote 1, table A–3.

TABLE A–5: Federal Civilian Employment by Branch and Agency Group

Year and month	All branches	Executive [1]				Legislative	Judicial
		Total	Defense agencies [2]	Post Office Department	All other agencies		
	Total (including areas outside continental United States)						
1947	2,153,170	2,142,825	989,659	455,002	698,164	7,127	3,218
1948	2,068,545	2,055,790	916,358	471,368	668,064	7,273	3,482
1948: December	2,380,186	2,369,331	937,178	759,268	672,885	7,343	3,512
1949: January	2,089,545	2,078,593	933,670	475,836	669,087	7,414	3,528
February	2,089,040	2,078,068	935,216	475,022	667,830	7,420	3,552
March	2,089,806	2,078,766	934,433	474,945	669,388	7,482	3,558
April	2,095,814	2,084,764	934,969	476,440	673,355	7,478	3,572
May	2,106,927	2,095,881	933,966	479,722	680,193	7,480	3,566
June	2,114,767	2,103,698	934,661	482,447	686,590	7,498	3,571
July	2,106,242	2,095,156	917,001	485,196	692,959	7,507	3,579
August	2,094,877	2,083,448	902,401	491,408	689,639	7,842	3,587
September	2,081,793	2,070,269	888,890	494,087	689,292	7,924	3,600
October	2,047,312	2,035,748	860,286	496,038	679,424	7,937	3,627
November	1,999,681	1,988,079	814,848	497,814	675,417	7,992	3,610
December	2,274,375	2,262,843	799,888	790,342	672,613	7,954	3,778
	Continental United States						
1947	1,893,875	1,883,600	766,854	453,425	663,321	7,127	3,148
1948	1,847,232	1,836,550	734,484	469,671	632,395	7,273	3,409
1948: December	2,151,744	2,170,964	777,474	756,549	636,941	7,343	3,437
1949: January	1,895,909	1,885,092	777,679	474,100	633,313	7,414	3,463
February	1,897,665	1,886,769	781,956	473,289	631,524	7,420	3,476
March	1,897,224	1,886,261	780,782	473,215	632,264	7,482	3,481
April	1,905,131	1,894,158	784,077	474,679	635,402	7,478	3,495
May	1,918,278	1,907,309	787,045	477,940	642,324	7,480	3,489
June	1,929,461	1,918,409	790,087	480,651	647,731	7,498	3,494
July	1,925,251	1,914,242	777,454	483,390	653,398	7,507	3,502
August	1,920,248	1,908,896	770,034	489,562	649,300	7,842	3,510
September	1,912,227	1,900,780	760,059	492,227	648,494	7,924	3,523
October	1,882,859	1,871,372	738,195	494,178	638,999	7,937	3,550
November	1,843,246	1,831,721	700,374	495,963	635,384	7,992	3,533
December	2,120,990	2,109,335	688,599	787,499	633,237	7,954	3,701

[1] Includes Government corporations (including Federal Reserve Banks and mixed-ownership banks of the Farm Credit Administration) and other activities performed by Government personnel in establishments such as navy yards, arsenals, hospitals, and force-account construction. Data, which are based mainly on reports to the Civil Service Commission, are adjusted to maintain continuity of coverage and definition with information for former periods.

[2] Covers civilian employees of the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, the Panama Canal, Philippine Alien Property Administration, Philippine War Damage Commission, Selective Service System, National Security Resources Board, National Security Council, Secretary of Defense.

TABLE A-6: Federal Civilian Pay Rolls by Branch and Agency Group

[In thousands]

Year and month	All branches	Executive [1]				Legislative	Judicial
		Total	Defense agencies [2]	Post Office Department	All other agencies		
	Total (including areas outside continental United States)						
1947	$5,966,107	$5,922,339	$2,646,913	$1,205,051	$2,070,375	$29,074	$14,694
1948	6,223,486	6,176,414	2,660,770	1,399,072	2,116,572	30,891	16,181
1948: December	624,586	620,396	245,159	178,899	196,338	2,722	1,468
1949: January	538,453	534,443	230,653	122,134	181,656	2,657	1,353
February	518,821	514,865	220,788	120,505	173,572	2,650	1,306
March	576,546	572,328	250,618	124,948	196,762	2,763	1,455
April	546,000	541,967	233,826	124,576	183,565	2,722	1,311
May	562,080	557,889	242,050	122,930	192,900	2,762	1,429
June	574,990	570,757	247,993	124,673	198,091	2,792	1,441
July	540,440	536,210	223,458	124,914	187,838	2,884	1,346
August	574,048	569,536	239,178	125,794	204,564	3,005	1,505
September	557,436	553,011	230,016	125,064	197,931	2,968	1,457
October	539,248	534,992	222,221	125,164	187,607	2,936	1,320
November	567,206	562,539	230,206	131,577	200,756	3,137	1,620
December	641,017	636,237	227,847	208,453	199,937	3,160	1,620
	Continental United States						
1947	$5,463,671	$5,420,337	$2,234,417	$1,200,943	$1,984,977	$29,074	$14,260
1948	5,731,115	5,684,494	2,272,001	1,394,037	2,018,456	30,891	15,730
1948: December	581,370	577,220	211,614	178,151	187,455	2,722	1,428
1949: January	499,162	495,191	200,204	121,691	173,296	2,657	1,314
February	481,725	477,807	192,441	120,067	165,299	2,650	1,268
March	534,633	530,456	218,474	124,489	187,493	2,763	1,414
April	504,901	500,907	202,699	124,114	174,094	2,722	1,272
May	522,002	517,853	212,447	122,474	182,932	2,762	1,387
June	533,002	528,810	216,532	124,210	188,068	2,792	1,400
July	500,642	496,451	194,463	124,446	177,542	2,884	1,307
August	532,977	528,509	209,583	125,321	193,605	3,005	1,463
September	518,493	514,109	202,222	124,596	187,291	2,968	1,416
October	501,648	497,431	195,446	124,700	177,285	2,936	1,281
November	529,283	524,568	203,434	131,088	190,046	3,137	1,578
December	602,952	598,214	201,653	207,707	188,854	3,160	1,578

[1] See footnote 1, table A-5.
[2] See footnote 2, table A-5.

TABLE A–7: Civilian Government Employment and Pay Rolls in Washington, D. C.,[1] by Branch and Agency Group

Year and month	Total government	District of Columbia government	Federal						
			Total	Executive[2]				Legislative	Judicial
				All agencies	Defense agencies[3]	Post Office Department	All other agencies		
	Employment								
1947	233,667	18,140	215,527	207,824	69,771	7,645	130,408	7,127	576
1948	231,242	18,777	212,465	204,601	68,509	7,826	128,266	7,273	591
1948: December	242,626	18,731	223,895	215,953	72,219	12,015	131,721	7,343	597
1949: January	237,542	18,896	218,646	210,629	71,202	7,623	131,804	7,414	603
February	238,911	19,064	219,847	211,823	71,723	7,613	132,487	7,420	604
March	239,898	19,095	220,803	212,719	71,991	7,625	133,103	7,482	602
April	241,442	19,358	222,084	214,004	72,359	7,750	133,895	7,478	602
May	242,370	19,144	223,226	215,133	72,545	7,755	134,833	7,480	613
June	243,896	19,767	224,129	216,019	72,440	7,749	135,830	7,498	612
July	245,067	19,708	225,359	217,237	72,521	7,770	136,946	7,507	615
August	244,743	19,736	225,007	216,546	71,246	7,784	137,516	7,842	619
September	242,426	19,416	223,010	214,470	69,448	7,773	137,249	7,924	616
October	240,886	19,504	221,382	212,828	68,009	7,749	137,070	7,937	617
November	240,083	20,408	219,675	211,064	66,121	7,891	137,052	7,902	619
December	243,729	19,963	223,766	215,170	65,860	12,218	137,092	7,954	642
	Pay rolls (in thousands)								
1947	$767,770	$49,455	$718,315	$686,796	$217,337	$29,562	$439,897	$29,074	$2,445
1948	815,351	52,045	763,306	729,791	233,589	31,298	464,904	30,891	2,624
1948: December	78,680	4,742	73,938	70,972	22,526	3,704	44,742	2,722	244
1949: January	71,971	4,647	67,324	64,441	20,687	2,669	41,085	2,657	226
February	69,096	4,418	64,678	61,810	19,984	2,597	39,229	2,650	218
March	77,819	4,801	73,018	70,011	22,190	2,721	45,100	2,763	244
April	72,228	4,577	67,651	64,703	20,491	2,642	41,570	2,722	226
May	74,803	4,676	70,127	67,128	21,020	2,670	43,438	2,762	237
June	74,475	4,748	69,727	66,695	20,980	2,678	43,037	2,792	240
July	72,686	3,775	68,911	65,793	21,238	2,691	41,864	2,884	234
August	80,173	4,185	75,988	72,733	23,851	2,760	46,122	3,005	250
September	77,040	5,379	71,661	68,457	20,921	2,737	44,799	2,998	236
October	73,815	5,187	68,628	65,458	20,137	2,685	42,636	2,936	234
November	79,279	5,526	73,753	70,348	21,577	2,809	45,962	3,137	268
December	81,366	5,489	75,877	72,444	22,253	4,391	45,800	3,160	273

[1] Data for the executive branch cover, in addition to the area inside the District of Columbia, the adjacent sections of Maryland and Virginia which are defined by the Bureau of the Census as in the metropolitan area.

[2] See footnote 1, table A–5.

[3] See footnote 2, table A–5.

TABLE A–8: Personnel and Pay in Military Branch of Federal Government

[In thousands]

Year and month	Personnel (average for year or as of first of month) [1]						Pay [2]			
	Total	Army	Air Force	Navy	Marine Corps	Coast Guard	Total	Pay rolls	Family allowances	Mustering-out and leave payments
1947	1,671	[3] 1,059	(3)	494	98	20	$5,350,396	$3,336,934	$308,220	$1,705,242
1948	1,492	[3] 964	(3)	424	84	20	3,442,981	2,993,124	317,258	132,579
1948: December	1,629	662	410	449	87	22	294,061	260,046	28,605	5,411
1949: January	1,645	677	412	447	88	22	299,593	265,618	28,709	5,266
February	1,688	712	416	450	88	22	290,041	257,503	28,163	4,376
March	1,682	703	417	451	89	22	289,063	255,340	29,108	4,615
April	1,667	689	417	450	88	23	292,446	258,961	29,037	4,448
May	1,651	673	418	449	87	23	284,790	250,549	29,517	4,724
June	1,639	664	418	447	87	23	291,583	256,996	29,254	5,333
July	1,637	659	419	450	86	24	302,994	270,428	29,050	3,515
August	1,638	658	423	451	86	24	298,893	266,772	28,982	3,139
September	1,629	656	420	444	86	24	304,426	272,386	29,547	2,492
October	1,614	636	418	432	84	24	331,512	305,301	23,921	2,290
November	1,605	627	417	428	83	23	328,637	303,682	23,153	1,803
December	1,600	658	416	420	82	24	333,542	[4] 305,280	[5] 19,945	8,317

[1] Represents persons on active duty as of the first of the month. Reserve personnel are excluded if on inactive duty or if on active duty for only a brief training or emergency period. Persons on terminal leave were included through October 1947. Data for Army include Philippine Scouts

[2] Pay rolls represent obligations based on personnel count, plus terminal leave payments to currently discharged personnel. Leave payments to former or active personnel are included under mustering-out and leave payments. Cash payments for clothing-allowance balances are included under pay rolls in January, April, July, and October for Navy, Marine Corps, and Coast Guard, and at time of discharge for Army and Air Force. Family allowances represent Government's contribution.

[3] Separate figures for Army and Air Force not available. Combined data shown under Army

[4] Includes Navy family allowance—not available separately.

[5] Excludes Navy family allowance—not available separately; included under Pay rolls.

TABLE A–9: Employees in Nonagricultural Establishments for Selected States [1]

[In thousands]

	1949												1948	Annual average
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	[2] 1947
Arizona	153	152	151	149	147	147	150	151	153	153	154	*155	159	148
Arkansas	289	285	283	277	*282	*275	*278	*279	*281	*280	*277	*282	*302	283
California	3,061	3,015	3,052	3,068	3,054	3,008	3,008	3,005	3,002	2,978	2,983	3,011	3,131	3,035
Connecticut	729	720	717	709	694	694	704	709	721	729	739	751	781	773
Georgia [3]	763	763	764	762	750	741	742	749	751	753	754	757	781	742
Idaho	127	126	127	126	126	124	124	120	119	116	111	114	126	121
Illinois	------	3,031	3,017	3,070	3,052	3,040	3,065	3,068	3,091	3,086	3,112	3,157	3,256	3,127
Indiana	1,160	1,118	------	1,188	1,166	1,155	1,154	1,151	1,167	1,163	1,171	1,186	1,236	*1,195
Kansas	434	454	------	451	455	453	452	448	443	435	431	437	460	*425
Maine	251	------	259	264	264	258	253	244	241	242	247	251	263	262
Maryland	680	678	662	690	687	680	681	680	683	687	690	699	723	671
Massachusetts	1,672	1,639	1,642	1,642	1,622	1,609	1,631	1,633	1,645	1,653	1,669	1,689	1,763	1,709
Minnesota	778	779	776	786	787	775	779	771	762	752	756	768	799	771
Missouri	1130	1,109	1,109	1,110	1,113	1,109	1,110	1,109	1,111	1,104	1,103	1,113	1,157	1,120
Montana	147	149	150	153	152	151	151	147	144	138	136	137	148	136
Nevada [4]	47	47	47	49	*49	49	49	*48	47	*46	45	46	48	48
New Hampshire [3]	163	162	164	167	168	165	163	158	156	157	160	161	167	160
New Jersey	1,511	1,490	1,499	1,501	1,501	1,486	1,500	1,503	1,516	1,520	1,523	1,538	1,586	1,564
New Mexico	134	135	135	135	134	133	135	132	131	130	131	131	133	116
New York	5,509	5,506	5,537	5,553	5,474	5,372	5,418	5,421	5,437	5,429	*5,454	5,481	5,699	5,534
Oklahoma	464	461	462	463	460	459	461	461	462	461	453	454	476	432
Pennsylvania	3,474	3,357	3,190	3,488	3,442	3,437	3,490	3,525	3,551	3,556	3,570	3,607	3,737	3,628
Rhode Island	284	281	282	278	267	264	265	266	270	275	281	285	295	294
Tennessee	726	714	717	721	715	712	714	*717	718	*714	*714	722	751	*696
Texas	------	------	------	------	------	------	------	1,738	1,749	1,742	1,744	1,752	1,808	1,649
Utah	183	181	182	193	187	188	186	183	181	178	173	171	*183	*178
Vermont	95	94	96	98	95	94	94	93	92	92	93	94	98	99
Washington	643	645	664	*677	*664	*663	*671	*662	*659	647	624	631	681	661
Wisconsin	964	958	968	980	990	985	972	960	959	957	961	971	1,006	969
Wyoming	81	82	83	85	84	83	82	79	75	73	73	73	79	73

[1] Revised data in all except the first three columns will be identified by an asterisk (*) for the first month's publication of such data. Comparable series, January to date, are available upon request to the Bureau of Labor Statistics or the cooperating State agency. See table A–10 for addresses of cooperating State agencies.

[2] Averages for 1943 may be obtained from previous issues of the Labor Review.

[3] Revised series; not comparable to data previously published.

[4] Does not include contract construction.

TABLE A–10: Employees in Manufacturing Industries, by State [1]

[In thousands]

State	1949												1948	Annual average
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	[2] 1947
Alabama	209.2	193.3	184.9	206.8	203.2	197.7	201.2	204.9	209.3	216.0	218.1	220.1	226.0	224.1
Arizona	15.1	15.2	14.7	14.3	14.1	*14.6	*15.4	*15.4	15.6	*15.3	14.8	14.6	*15.3	14.2
Arkansas	68.1	69.7	69.6	68.5	68.9	*67.9	*68.4	69.3	70.4	69.8	68.7	72.3	76.1	75.1
California [3]	703.2	711.7	737.6	754.9	758.4	711.8	699.6	697.0	701.3	691.3	694.0	704.0	727.1	712.0
Colorado [4]	54.5	55.0	50.4	54.8	53.0	52.3	51.0	51.2	51.0	51.6	51.7	52.6	55.3	57.1
Connecticut	349.3	347.5	344.0	335.6	324.8	322.8	332.6	340.2	354.4	367.4	379.0	387.6	394.2	415.6
Delaware [3]	42.3	41.4	42.8	*45.6	46.6	45.3	44.6	44.2	44.5	44.4	44.8	44.5	44.8	45.9
District of Columbia	17.5	17.5	17.4	17.3	17.3	17.3	17.3	17.2	16.7	16.7	16.6	16.5	16.8	16.8
Florida [4]	93.1	88.0	83.9	82.9	81.1	79.8	81.9	87.2	89.8	95.9	99.0	98.3	99.2	92.7
Georgia [4]	266.9	268.9	267.6	264.3	258.1	249.6	250.6	256.0	261.2	266.9	268.4	268.6	274.3	273.7
Idaho	19.4	21.6	22.4	21.7	21.7	20.9	20.5	18.4	17.5	16.0	15.1	16.1	19.8	20.5
Illinois [3]	----	1,107.5	1,095.9	1,125.3	1,116.2	1,105.3	1,117.0	1,125.5	1,147.6	1,171.1	1,191.7	1,211.5	1,234.5	1,248.0
Indiana	502.0	473.2	476.8	534.2	519.0	511.9	505.2	510.4	523.9	532.3	539.7	546.8	557.6	562.4
Iowa	146.9	144.7	145.8	143.6	143.6	138.8	140.7	140.4	142.7	147.6	149.2	151.7	154.5	149.6
Kansas	86.4	87.0	87.7	87.5	88.8	89.2	88.0	86.7	86.3	86.0	86.0	86.6	87.8	81.5
Kentucky	----	121.1	124.3	128.2	125.1	125.2	122.7	122.4	126.9	127.6	128.9	128.3	132.1	133.1
Louisiana [4]	139.1	140.6	136.7	136.3	137.1	132.1	133.2	133.8	134.1	136.5	138.1	146.2	154.4	151.0
Maine	100.1	101.1	108.1	111.4	109.8	103.8	102.8	98.4	98.3	102.0	106.3	107.8	109.9	114.5
Maryland [3]	202.0	207.5	192.0	214.6	215.0	209.4	211.1	208.6	212.1	215.6	218.0	219.1	227.6	230.3
Massachusetts [3]	647.4	642.6	647.3	645.2	634.2	617.8	629.3	636.1	655.5	675.8	690.8	696.7	715.5	742.6
Michigan	----	905.4	986.9	1,009.4	1,002.2	982.0	976.6	931.7	987.4	1,007.7	1,010.5	1,041.3	1,062.9	1,041.7
Minnesota	184.5	185.7	185.0	189.7	194.4	188.1	184.8	182.4	182.7	185.5	186.5	187.6	193.5	189.5
Mississippi [4]	78.9	78.5	77.9	76.4	72.2	72.2	73.0	79.1	78.5	81.0	80.6	81.9	85.6	91.9
Missouri	329.8	334.6	331.7	336.0	336.1	334.4	330.4	329.1	331.8	338.6	339.5	342.5	346.0	348.8
Montana	17.6	19.1	19.8	20.1	19.1	18.9	18.4	17.2	16.3	15.9	15.9	16.0	16.3	18.4
Nebraska [4]	49.1	49.4	49.7	49.1	47.4	47.1	47.5	46.9	46.0	47.4	48.0	49.0	49.2	49.3
Nevada	3.0	3.0	3.0	3.1	*3.1	3.1	*3.1	*3.0	*2.9	*2.9	*2.9	*3.0	3.3	3.3
New Hampshire [4]	74.4	74.0	74.6	74.7	74.6	72.9	72.8	71.4	71.7	75.1	77.8	77.4	78.9	82.8
New Jersey [3]	654.1	651.9	657.8	652.7	649.5	631.1	649.7	658.8	675.2	694.9	702.3	707.2	724.7	749.6
New Mexico	9.9	10.4	10.6	10.5	10.3	10.3	10.2	9.9	9.4	9.0	8.9	8.9	8.9	8.8
New York	1,769.3	1,763.3	1,794.2	1,801.4	1,753.6	1,653.7	1,686.9	1,706.1	1,742.3	1,790.0	1,809.0	1,807.8	1,833.1	1,897.2
North Carolina	400.4	399.6	399.3	394.4	382.2	360.2	365.9	366.5	374.1	381.8	392.3	394.2	403.0	410.5
North Dakota [4]	5.8	6.0	6.1	5.9	6.0	6.0	6.0	5.7	5.7	5.6	5.4	5.7	6.1	6.1
Ohio	1,078.3	1,010.4	990.0	*1,082.4	*1,079.5	1,063.0	1,060.7	1,103.8	1,131.3	1,164.3	1,187.7	1,198.3	1,219.3	1,245.1
Oklahoma [4]	63.9	64.4	63.9	62.3	63.5	64.0	64.4	64.5	64.8	65.7	65.1	66.3	67.1	62.4
Oregon	136.1	141.9	149.5	158.6	158.8	142.2	146.8	136.3	132.6	130.9	127.0	128.5	137.1	132.3
Pennsylvania	1,316.4	1,252.2	1,276.5	1,340.6	1,319.0	1,315.1	1,350.3	1,364.1	1,411.4	1,448.2	1,465.3	1,480.0	1,519.1	1,524.5
Rhode Island	135.1	136.3	135.8	131.8	133.9	122.5	123.2	122.9	126.1	132.7	138.6	140.2	142.9	153.5
South Carolina [4]	200.8	200.5	201.8	199.9	199.0	194.8	196.6	196.5	200.4	202.6	204.6	206.2	206.1	202.1
South Dakota	11.1	11.4	11.5	11.4	11.4	11.5	11.3	10.9	10.7	10.9	10.9	11.2	11.6	11.3
Tennessee	231.2	228.9	236.7	232.6	231.3	228.9	227.0	*228.5	231.2	234.3	237.4	237.0	246.6	250.5
Texas [3]	338.2	336.1	338.9	339.8	337.7	335.6	337.8	333.0	331.8	336.2	337.9	343.1	353.3	334.5
Utah	28.2	27.5	28.0	33.0	29.0	31.0	28.0	27.0	26.0	26.0	26.0	26.0	*27.7	*26.5
Vermont	33.4	33.7	33.9	33.0	32.2	31.5	32.1	32.5	33.0	34.0	35.0	35.4	36.3	39.8
Virginia [4]	218.5	219.4	220.9	218.9	213.5	208.0	*211.9	211.7	215.3	221.2	223.5	225.8	230.6	234.5
Washington	161.2	165.5	173.0	173.7	167.4	168.4	169.6	166.1	166.7	167.2	165.4	157.7	160.1	173.5
West Virginia	----	120.8	121.4	*127.2	126.6	122.7	126.4	128.1	131.4	134.5	136.3	137.6	139.5	137.6
Wisconsin	380.3	384.5	392.1	404.1	416.3	410.3	398.3	393.2	399.0	407.8	411.4	415.5	426.5	434.3
Wyoming	6.7	7.3	7.7	6.6	6.6	6.6	6.5	5.8	5.6	5.5	5.5	5.6	6.1	6.3

[1] Revised data in all except the first three columns will be identified by an asterisk (*) for the first month's publication of such data. Comparable series, January 1943 to date, are available upon request to the Bureau of Labor Statistics or the cooperating State agency listed below.

[2] Averages for 1943 may be obtained from previous issues of the Labor Review.

[3] The manufacturing series for these States are based on the 1942 Social Security Board Classification (others are on the 1945 Standard Industrial Classification).

[4] Revised series; not comparable to data previously published.

Cooperating State Agencies:

Alabama—Department of Industrial Relations, Montgomery 5.
Arizona—Unemployment Compensation Division, Employment Security Comm., Phoenix.
Arkansas—Employment Security Division, Department of Labor, Little Rock.
California—Division of Labor Statistics and Research, Department of Industrial Relations, San Francisco 3.
Colorado—Department of Employment Security, Denver 2.
Connecticut—Employment Security Division, Department of Labor and Factory Inspection, Hartford 15.
Delaware—Federal Reserve Bank of Philadelphia, Philadelphia 1, Pa.
District of Columbia—USES for the District of Columbia, Washington, D. C.
Florida—Unemployment Compensation Division, Industrial Commission, Tallahassee.
Georgia—Employment Security Agency, Department of Labor, Atlanta 3.
Idaho—Employment Security Agency, Boise.
Illinois—Division of Placement and Unemployment Compensation, Department of Labor, Chicago 54.
Indiana—Research and Statistics Section, Employment Security Division, Indianapolis 12.
Iowa—Employment Security Commission, Des Moines 9.
Kansas—Employment Security Division, State Labor Department, Topeka.
Kentucky—Bureau of Employment Security, Department of Economic Security, Frankfort.
Louisiana—Division of Employment Security, Department of Labor, Baton Rouge 4.
Maine—Employment Security Commission, Augusta.
Maryland—Employment Security Board, Department of Employment Security, Baltimore 1.
Massachusetts—Division of Statistics, Department of Labor and Industries, Boston 10.
Michigan—Michigan Unemployment Compensation Commission Detroit 2.
Minnesota—Division of Employment and Security, Department of Social Security, St. Paul 1.
Mississippi—Employment Security Commission, Jackson.
Missouri—Division of Employment Security, Department of Labor and Industrial Relations, Jefferson City.
Montana—Unemployment Compensation Commission, Helena.
Nebraska—Division of Employment Security, Department of Labor, Lincoln 1.
Nevada—Employment Security Department, Carson City.
New Hampshire—Employment Service and Unemployment Compensation Division, Bureau of Labor, Concord.
New Jersey—Department of Labor and Industry, Trenton 8.
New Mexico—Employment Security Commission, Albuquerque.
New York—Research and Statistics, Division of Placement and Unemployment Insurance, Department of Labor, New York 17.
North Carolina—Department of Labor, Raleigh.
North Dakota—Unemployment Compensation Division, Bismarck.
Ohio—Bureau of Unemployment Compensation, Columbus 10.
Oklahoma—Employment Security Commission, Oklahoma City 2.
Oregon—Unemployment Compensation Commission, Salem.
Pennsylvania—Federal Reserve Bank of Philadelphia, Philadelphia 1 (mfg.); Bureau of Research and Information, Department of Labor, and Industry, Harrisburg (nonmfg.).
Rhode Island—Department of Labor, Providence 2.
South Carolina—Employment Security Commission, Columbia 10.
South Dakota—Employment Security Department, Aberdeen.
Tennessee—Department of Employment Security, Nashville 3.
Texas—Texas Employment Commission, Austin 19.
Utah—Department of Employment Security, Industrial Commission Salt Lake City 13.
Vermont—Unemployment Compensation Commission, Montpelier.
Virginia—Division of Research and Statistics, Department of Labor and Industry, Richmond 14.
Washington—Employment Security Department, Olympia.
West Virginia—Department of Employment Security, Charleston 8.
Wisconsin—Industrial Commission, Madison 3.
Wyoming—Employment Security Commission, Casper.

B: Labor Turn-Over

TABLE B–1: Monthly Labor Turn-Over Rates (Per 100 Employees) in Manufacturing Industries, by Class of Turn-Over [1]

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total accession:												
1949	3.2	2.9	3.0	2.9	3.5	4.4	3.5	4.4	4.1	3.7	[2] 3.3	------
1948	4.6	3.9	4.0	4.0	4.1	5.7	4.7	5.0	5.1	4.5	3.9	[2] 2.7
1947	6.9	5.0	5.1	5.1	4.8	5.5	4.9	5.3	5.9	5.5	4.8	3.6
1946	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	4.3
1939 [3]	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8
Total separation:												
1949	4.6	4.1	4.8	4.8	5.2	4.3	3.8	4.0	4.2	4.1	[2] 3.7	------
1948	4.3	4.2	4.5	4.7	4.3	4.5	4.4	5.1	5.4	4.5	4.1	4.3
1947	4.9	4.5	4.9	5.2	5.4	4.7	4.6	5.3	5.9	5.0	4.0	3.7
1946	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	4.5
1939 [3]	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
Quit: [4]												
1949	1.7	1.4	1.6	1.7	1.6	1.5	1.4	1.8	2.1	1.5	[2] 1.2	------
1948	2.6	2.5	2.8	3.0	2.8	2.9	2.9	3.4	3.9	2.8	2.2	1.7
1947	3.5	3.2	3.5	3.7	3.5	3.1	3.1	4.0	4.5	3.6	2.7	2.3
1946	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	4.7	3.7	3.0
1939 [3]	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1949	.3	.3	.3	.2	.2	.2	.2	.3	.2	.2	[2] .2	------
1948	.4	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4	.3
1947	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
1946	.5	.5	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4
1939 [3]	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
Lay-off: [5]												
1949	2.5	2.3	2.8	2.8	3.3	2.5	2.1	1.8	1.8	2.3	[2] 2.2	------
1948	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.2	1.0	1.2	1.4	2.2
1947	.9	.8	.9	1.0	1.4	1.1	1.0	.8	.9	.9	.8	.9
1946	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	1.0	.7	1.0
1939 [3]	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
Miscellaneous, including military: [6]												
1949	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	[2] .1	------
1948	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1947	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1946	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1

[1] Month-to-month changes in total employment in manufacturing industries as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month, while the latter, for the most part, refer to a 1-week period ending nearest the 15th of the month. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain seasonal industries, such as canning and preserving, are not covered. Plants on strike are also excluded. See note, table B–2.

[2] Preliminary figures.

[3] Prior to 1943, rates relate to wage earners only.

[4] Prior to September 1940, miscellaneous separations were included with quits.

[5] Including temporary, indeterminate (of more than 7 days' duration), and permanent lay-offs.

TABLE B–2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries [1]

Industry group and industry	Total accession		Separation									
			Total		Quit		Discharge		Lay-off		Miscellaneous, including military	
	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949
MANUFACTURING												
Durable goods	3.4	3.5	3.8	4.5	1.0	1.3	0.2	0.2	2.5	2.9	0.1	0.1
Nondurable goods	3.3	3.9	3.7	3.7	1.4	1.7	.2	.2	2.0	1.7	.1	.1
Durable goods												
Iron and steel and their products	3.5	3.2	4.4	4.1	.9	1.0	.2	.2	3.2	2.8	.1	.1
Blast furnaces, steel works, and rolling mills	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Gray-iron castings	3.6	2.9	4.2	4.7	1.0	.9	.2	.2	2.9	3.5	.1	.1
Malleable-iron castings	3.4	2.8	5.8	2.6	.7	.9	.2	.3	4.8	1.3	.1	.1
Steel castings	3.0	2.2	4.2	4.0	.5	.6	.1	.2	3.5	3.1	.1	.1
Cast-iron pipe and fittings	2.7	2.3	.9	2.8	.4	.6	.2	.2	.2	1.9	.1	.1
Tin cans and other tinware	3.0	3.0	5.6	5.6	.8	1.1	.5	.8	4.1	3.7	.2	(3)
Wire products	7.2	2.6	6.7	8.7	1.0	1.5	.2	.2	5.4	6.9	.1	.1
Cutlery and edge tools	3.2	4.1	1.6	2.0	1.0	1.2	.2	.5	.4	1.1	(4)	.1
Tools (except edge tools, machine tools, files, and saws)	3.2	3.2	1.9	2.1	.6	.7	.2	(4)	1.0	1.2	.1	.2
Hardware	4.3	4.7	2.9	2.6	1.2	1.3	.2	.2	1.4	1.0	.1	.1
Stoves, oil burners, and heating equipment	3.0	5.8	4.4	5.4	1.2	1.9	.4	.6	2.7	2.9	.1	(4)
Steam and hot-water heating apparatus and steam fittings	3.3	5.9	3.0	2.5	1.4	1.2	.1	.3	1.5	1.0	(4)	(4)
Stamped and enameled ware and galvanizing	3.0	2.9	3.6	7.3	1.0	1.5	.2	.3	2.4	5.4	(4)	.1
Fabricated structural-metal products	2.7	3.0	5.3	5.0	.7	1.0	.3	.3	4.2	3.6	.1	.1
Bolts, nuts, washers, and rivets	3.3	1.3	1.7	2.9	.9	.5	(4)	.1	.7	2.1	.1	.2
Forgings, iron and steel	2.6	2.4	4.8	4.0	.4	.6	(4)	.1	4.3	3.2	.1	.1
Electrical machinery	3.4	3.9	2.7	3.0	1.0	1.1	.2	.2	1.4	1.6	.1	.1
Electrical equipment for industrial use	2.1	2.3	1.6	2.1	.7	.7	.1	.1	.7	1.2	.1	.1
Radios, radio equipment, and phonographs	7.0	7.8	3.7	3.7	2.0	2.2	.5	.5	1.1	.9	.1	.1
Communication equipment, except radios	.8	2.0	2.9	2.7	.4	.7	.1	.2	2.2	1.7	.2	.1
Machinery, except electrical	2.1	2.2	3.1	3.9	.7	.8	.2	.1	2.1	2.9	.1	.1
Engines and turbines	3.1	4.0	3.6	3.1	.7	.7	.1	(4)	2.6	2.4	.2	(4)
Agricultural machinery and tractors	2.1	2.2	3.1	4.2	1.0	.8	.2	.2	1.8	3.0	.1	.2
Machine tools	1.0	1.1	1.9	3.6	.4	.6	.1	.1	1.3	2.8	.1	.1
Machine-tool accessories	2.9	3.4	3.3	3.2	.8	1.3	.2	.2	2.3	1.6	(4)	.1
Metalworking machinery and equipment, not elsewhere classified	1.8	1.2	1.6	2.4	.5	.6	.1	.1	.9	1.6	.1	.1
General industrial machinery, except pumps	1.8	1.7	2.9	4.5	.8	.7	.1	.2	1.9	3.5	.1	.1
Pumps and pumping equipment	1.8	2.3	2.1	3.3	.6	.7	.1	.4	1.2	1.8	.2	.4
Transportation equipment, except automobiles	5.3	4.8	6.4	7.9	.9	1.2	.2	.3	5.2	6.3	.1	.1
Aircraft	2.7	2.2	3.1	5.0	1.0	1.3	.2	.2	1.9	3.5	(4)	(4)
Aircraft parts, including engines	1.5	2.0	2.5	3.2	.6	.9	.3	.4	1.5	1.8	.1	.1
Shipbuilding and repairs	(3)	15.2	(3)	19.4	(3)	1.1	(3)	.6	(3)	17.6	(3)	.1
Automobiles	(3)	2.8	(3)	6.4	(3)	1.5	(3)	.3	(3)	4.5	(3)	.1
Motor vehicles, bodies, and trailers	(3)	2.8	(3)	5.6	(3)	1.7	(3)	.3	(3)	3.5	(3)	.1
Motor-vehicle parts and accessories	(3)	2.8	(3)	8.2	(3)	1.1	(3)	.2	(3)	6.8	(3)	.1
Nonferrous metals and their products	3.5	5.3	3.8	4.3	1.0	1.1	.3	.2	2.4	2.9	.1	.1
Primary smelting and refining, except aluminum and magnesium	1.5	2.4	1.7	2.2	.9	.7	.3	.3	.4	1.1	.1	.1
Rolling and drawing of copper and copper alloys	5.1	5.2	1.2	1.4	.6	.5	.1	(4)	.5	.8	(4)	.1
Lighting equipment	3.1	4.5	3.8	6.6	.8	1.0	.1	.2	2.8	5.2	.1	.2
Nonferrous metal foundries, except aluminum and magnesium	4.5	5.0	3.6	3.2	1.5	1.2	.4	.4	1.6	1.5	.1	.1
Lumber and timber basic products	3.6	4.3	3.5	4.2	1.8	2.3	.3	.2	1.3	1.6	.1	.1
Sawmills	3.0	3.6	3.0	4.1	1.6	2.1	.2	.2	1.2	1.7	(4)	.1
Planing and plywood mills	4.2	4.3	2.1	2.5	1.5	1.5	.2	.1	.4	.8	(4)	.1
Furniture and finished lumber products	5.0	6.3	4.0	4.2	1.8	2.4	.4	.6	1.7	1.1	.1	.1
Furniture, including mattresses and bedsprings	5.2	6.6	4.1	4.1	1.9	2.5	.4	.6	1.7	1.0	.1	(4)
Stone, clay, and glass products	3.8	2.8	2.2	3.5	.8	.9	.1	.2	1.2	2.3	.1	.1
Glass and glass products	4.6	3.7	2.5	2.7	.8	.8	.1	.1	1.5	1.7	.1	.1
Cement	1.1	1.2	1.5	1.5	.7	.7	.2	.2	.5	.5	.1	.1
Brick, tile, and terra cotta	3.3	3.0	2.9	5.6	1.1	1.5	.2	.2	1.5	3.8	.1	.1
Pottery and related products	2.6	3.2	2.0	2.1	.8	1.3	.2	.3	1.0	.4	(4)	.1

See footnotes at end of table.

TABLE B–2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries [1]—Continued

Industry group and industry	Total accession		Separation									
			Total		Quit		Discharge		Lay-off		Miscellaneous, including military	
	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949	Nov.[2] 1949	Oct. 1949
MANUFACTURING—Continued												
Nondurable goods												
Textile-mill products	3.4	4.6	2.8	2.8	1.3	1.5	0.2	0.2	1.2	1.0	0.1	0.1
Cotton	3.9	4.6	2.4	2.6	1.5	1.7	.2	.3	.7	.6	(4)	(4)
Silk and rayon goods	3.8	4.0	2.5	3.1	1.3	1.6	.2	.2	.9	1.2	.1	.1
Woolen and worsted, except dyeing and finishing	3.5	5.8	3.7	4.9	.9	1.1	.2	.2	2.5	3.3	.1	.3
Hosiery, full-fashioned	1.7	3.4	2.5	1.9	1.4	1.7	.4	.1	.7	.1	(4)	(4)
Hosiery, seamless	4.6	6.2	2.2	2.5	1.6	1.9	.1	.1	.5	.5	(4)	(4)
Knitted underwear	1.5	3.3	3.9	3.0	1.6	2.3	.2	.2	2.1	.5	(4)	(4)
Dyeing and finishing textiles, including woolen and worsted	3.3	4.2	1.5	1.4	.6	.8	.3	.2	.5	.3	.1	.1
Apparel and other finished textile products	4.0	4.0	4.3	5.1	2.3	2.5	.2	.2	1.8	2.4	(4)	(4)
Men's and boys' suits, coats, and overcoats	2.7	2.3	4.6	3.6	1.3	1.4	.1	.1	3.1	2.1	.1	(4)
Men's and boys' furnishings, work clothing, and allied garments	4.4	5.3	3.9	4.4	2.9	3.4	.2	.2	.8	.8	(4)	(4)
Leather and leather products	2.0	2.5	4.0	3.7	1.6	1.8	.2	.2	2.1	1.6	.1	.1
Leather	2.4	2.8	1.9	1.9	.6	.6	.1	.2	1.2	1.0	(4)	.1
Boots and shoes	1.9	2.4	4.0	3.5	1.8	2.0	.2	.2	1.9	1.3	.1	(4)
Food and kindred products	5.1	5.6	4.8	5.4	1.9	2.2	.4	.4	2.4	2.7	.1	.1
Meat products	7.2	7.1	4.7	5.0	2.0	2.2	.5	.5	2.1	2.2	.1	.1
Grain-mill products	1.6	2.8	3.4	3.7	.9	1.5	.3	.6	2.1	1.5	.1	.1
Bakery products	2.1	3.7	3.8	4.0	1.7	2.2	.4	.4	1.7	1.3	(4)	.1
Tobacco manufactures	2.0	3.0	2.4	3.1	1.3	1.7	.1	.2	.9	1.1	.1	.1
Paper and allied products	1.8	2.9	1.8	2.0	.8	1.1	.2	.2	.7	.6	.1	.1
Paper and pulp	1.4	2.1	1.4	1.8	.6	.8	.1	.2	.6	.7	.1	.1
Paper boxes	2.6	4.7	2.7	2.6	1.3	1.7	.3	.3	1.0	.5	.1	.1
Chemicals and allied products	1.6	2.0	1.2	1.6	.4	.5	.1	.1	.6	.9	.1	.1
Paints, varnishes, and colors	1.2	1.6	1.4	1.6	.4	.6	.2	.2	.8	.7	(4)	.1
Rayon and allied products	1.8	2.3	.9	1.1	.3	.5	(4)	.1	.6	.4	(4)	.1
Industrial chemicals, except explosives	1.5	2.2	1.2	1.4	.4	.4	.1	.1	.6	.8	.1	.1
Products of petroleum and coal	.3	.4	1.2	1.1	.3	.3	(4)	(4)	.8	.7	.1	.1
Petroleum refining	.2	.3	1.1	1.0	.3	.2	(4)	(4)	.7	.7	.1	.1
Rubber products	2.4	3.6	2.7	2.7	1.2	1.2	.1	.1	1.3	1.3	.1	.1
Rubber tires and inner tubes	2.1	2.9	1.5	2.3	.6	.7	.1	.1	.7	1.4	.1	.1
Rubber footwear and related products	3.1	4.2	2.5	2.2	1.7	1.6	.1	.1	.6	.4	.1	.1
Miscellaneous rubber industries	2.6	4.6	5.6	3.5	2.0	1.8	.2	.4	3.3	1.2	.1	.1
Miscellaneous industries	(3)	3.3	(3)	2.8	(3)	1.1	(3)	.1	(3)	1.5	(3)	.1
NONMANUFACTURING												
Metal mining	3.3	2.9	3.0	3.2	1.7	1.8	.1	.1	1.1	1.2	.1	.1
Iron-ore	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Copper-ore	4.3	4.4	2.7	3.3	2.1	2.6	.2	.1	.4	.5	(4)	.1
Lead- and zinc-ore	3.5	2.5	2.8	2.8	1.6	1.4	.2	.1	.9	1.2	.1	.1
Coal mining:												
Anthracite	2.1	(3)	2.1	(3)	1.3	(3)	(4)	(3)	.7	(3)	.1	(3)
Bituminous	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Communication:												
Telephone	(3)	.8	(3)	1.7	(3)	1.1	(3)	.1	(3)	.4	(3)	.1
Telegraph	(3)	1.0	(3)	2.8	(3)	.7	(3)	(4)	(3)	1.9	(3)	.2

[1] Since January 1943 manufacturing firms reporting labor turn-over information have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample, comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products. Labor turn-over data, beginning in January 1943, refer to wage and salary workers. Employment information for wage and salary workers is available for major manufacturing industry groups (table A–3); for individual industries these data refer to production workers only (table A–6).

[2] Preliminary figures.

[3] Not available.

[4] Less than 0.05.

NOTE: Explanatory notes outlining the concepts, sources, size of the reporting sample, and methodology used in preparing the data presented in tables B–1 and B–2 are contained in the Bureau's monthly mimeographed release, "Labor Turn-Over," which is available upon request.

C: Earnings and Hours

TABLE C–1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]

Year and month	Mining																	
	Metal												Coal					
	Total: Metal			Iron			Copper			Lead and zinc			Anthracite			Bituminous		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$54.63	41.8	$1.307	$52.34	40.2	$1.302	$59.27	44.8	$1.323	$55.09	41.3	$1.334	$62.77	37.7	$1.663	$66.59	40.7	$1.636
1948: Average	60.80	42.4	1.434	58.32	41.3	1.412	65.81	45.2	1.456	61.37	41.3	1.486	66.57	36.8	1.809	72.12	38.0	1.898
1948: November	64.02	42.4	1.510	61.10	41.2	1.483	70.62	45.5	1.552	66.20	42.3	1.565	60.89	33.4	1.823	72.73	37.2	1.955
December	65.36	43.0	1.520	61.32	41.1	1.492	71.70	46.2	1.552	68.23	43.1	1.583	63.27	34.0	1.861	76.28	39.0	1.956
1949: January	64.75	42.1	1.538	62.75	42.0	1.494	72.15	45.9	1.572	68.67	42.0	1.635	67.39	36.0	1.872	76.32	39.2	1.947
February	64.74	42.4	1.527	62.81	42.1	1.492	67.56	43.7	1.546	67.82	42.1	1.611	67.97	36.1	1.838	73.56	37.9	1.941
March	66.16	43.3	1.528	63.30	42.4	1.493	70.90	46.1	1.538	69.56	43.1	1.614	68.15	25.0	1.846	70.54	36.4	1.938
April	64.71	42.6	1.519	62.20	41.8	1.488	71.35	46.3	1.541	64.74	41.0	1.579	50.82	30.6	1.857	72.33	37.4	1.934
May	63.72	42.2	1.510	61.64	41.4	1.489	67.37	44.6	1.514	66.03	41.9	1.576	63.63	34.1	1.866	72.98	37.5	1.946
June	60.53	40.6	1.491	60.26	40.8	1.477	59.02	39.8	1.483	63.27	40.9	1.547	45.28	23.4	1.935	59.90	30.7	1.951
July	58.75	39.4	1.491	56.97	38.7	1.472	59.43	39.7	1.497	61.41	39.9	1.539	66.08	35.0	1.888	47.94	25.1	1.910
August	58.18	39.5	1.473	57.32	39.1	1.466	56.20	38.0	1.479	59.87	40.1	1.493	42.80	23.4	1.829	49.51	26.1	1.897
September	58.96	39.6	1.489	59.15	39.3	1.505	58.27	39.4	1.479	60.34	40.2	1.501	59.24	31.8	1.863	52.46	27.0	1.943
October	59.55	40.1	1.485	55.06	36.2	1.521	59.05	40.2	1.469	61.90[r]	40.7	1.521	75.81	39.2	1.934	63.06	31.8	1.983
November	51.78	35.2	1.471	37.41	26.0	1.439	59.89	40.3	1.486	61.90	40.7	1.521	67.82	35.6	1.905	70.67	35.3	2.002

Year and month	Mining—Continued						Contract construction [2]											
	Crude petroleum and natural gas production			Nonmetallic mining and quarrying			Total: Contract construction			Nonbuilding construction								
	Petroleum and natural gas production									Total: Nonbuilding construction			Highway and street			Heavy construction		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$59.36	40.3	$1.473	$50.54	45.0	$1.123												
1948: Average	66.68	40.0	1.667	55.31	44.5	1.243	$68.25	38.1	$1.790	$65.61	40.6	$1.639	$62.41	41.6	$1.500	$69.69	39.9	$1.746
1948: November	68.82	39.6	1.738	57.05	44.4	1.285	68.28	37.1	1.840	65.31	39.1	1.671	61.54	40.6	1.514	67.53	37.5	1.803
December	69.52	40.0	1.738	58.79	44.3	1.282	71.65	38.5	1.862	69.64	40.7	1.712	62.62	40.7	1.538	74.47	40.6	1.833
1949: January	73.32	41.1	1.784	54.91	42.7	1.286	70.14	37.5	1.869	67.54	39.5	1.710	59.98	39.2	1.530	73.00	39.7	1.839
February	70.37	39.8	1.768	54.36	42.3	1.285	69.96	37.3	1.877	68.06	39.7	1.714	61.17	39.8	1.536	72.34	39.6	1.827
March	69.84	39.6	1.756	54.40	42.5	1.280	69.22	36.9	1.878	67.25	39.5	1.703	61.96	40.4	1.534	70.78	38.8	1.826
April	70.30	39.9	1.762	56.38	43.3	1.302	69.86	37.3	1.872	68.47	40.1	1.709	62.44	40.2	1.555	73.96	40.2	1.842
May	71.78	40.6	1.768	58.17	44.3	1.313	71.70	38.5	1.864	71.42	41.7	1.712	67.17	42.9	1.567	75.47	40.8	1.851
June	70.59	39.7	1.778	57.82	43.8	1.320	71.41	38.5	1.856	71.34	41.9	1.704	66.52	42.3	1.574	76.25	41.5	1.837
July	72.54	40.3	1.800	56.77	43.4	1.308	71.55	38.6	1.856	72.20	42.2	1.712	68.17	43.3	1.575	75.98	41.3	1.840
August	70.74	40.1	1.764	57.86	44.3	1.306	72.13	38.7	1.862	72.56	42.4	1.712	68.55	43.4	1.578	76.43	41.7	1.834
September	72.40	40.4	1.792	56.68	43.2	1.312	70.73	37.7	1.874	70.82	40.9	1.730	66.75	41.6	1.607	74.55	40.7	1.833
October	74.24	41.2	1.802	57.51	44.1	1.304	72.06	38.3	1.881	72.71	41.8	1.741	68.37	42.3	1.617	76.17	41.5	1.836
November	71.36	40.0	1.784	56.92	42.8	1.330	70.17	37.1	1.891	69.90	39.9	1.751	65.30	40.7	1.605	73.74	39.7	1.858

Year and month	Contract construction [2]—Continued											
	Nonbuilding construction—Con.			Building construction								
	Other construction			Total: Building construction			General contractors			Special-trade contractors		
										Total: Special-trade contractors		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average												
1948: Average	$66.16	40.4	$1.637	$68.85	37.3	$1.848	$64.64	36.6	$1.766	$73.87	38.0	$1.946
1948: November	67.00	39.8	1.683	69.39	38.4	1.906	64.97	35.6	1.824	74.72	37.3	2.006
December	69.03	40.6	1.702	72.33	37.8	1.915	68.60	37.4	1.835	76.85	38.1	2.017
1949: January	67.52	39.6	1.705	70.88	37.0	1.918	66.84	36.5	1.833	75.50	37.5	2.012
February	67.88	39.9	1.701	70.53	36.5	1.930	66.84	36.1	1.853	75.13	37.1	2.027
March	67.37	39.8	1.698	69.83	36.1	1.933	66.09	35.8	1.864	73.87	36.8	2.022
April	67.99	39.6	1.710	70.33	36.4	1.934	66.88	35.9	1.862	74.84	36.9	2.027
May	71.07	41.3	1.722	71.81	37.2	1.930	68.34	36.8	1.858	76.29	37.7	2.023
June	71.19	41.7	1.709	71.44	37.1	1.924	67.70	36.7	1.846	76.43	37.7	2.026
July	72.64	41.6	1.744	71.28	37.1	1.922	67.33	36.6	1.838	76.59	37.7	2.032
August	72.67	41.0	1.774	71.95	37.2	1.932	68.02	36.8	1.848	76.99	37.8	2.036
September	70.78	39.7	1.781	70.69	36.5	1.938	66.64	36.0	1.854	75.80	37.2	2.040
October	74.50	41.1	1.813	71.80	36.9	1.944	67.89	36.5	1.861	76.51	37.5	2.041
November	70.39	38.4	1.831	70.27	36.1	1.948	66.34	35.7	1.856	74.95	36.5	2.056

Year and month	Contract construction [2]—Continued								
	Building construction								
	Special-trade contractors								
	Plumbing and heating			Painting and decorating					
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings			
1947: Average									
1948: Average	$76.83	39.2	$1.960	$69.77	36.3	$1.925			
1948: November	76.34	38.0	2.010	70.61	35.3	2.003			
December	80.71	39.7	2.031	71.89	35.9	1.991			
1949: January	79.08	38.1	2.022	68.73	34.4	1.985			
February	78.16	38.8	2.014	68.92	34.9	1.974			
March	77.33	38.6	2.003	69.73	35.5	1.964			
April	78.95	38.3	2.009	69.66	35.5	1.965			
May	77.75	38.5	2.018	71.93	36.6	1.963			
June	78.08	38.8	2.022	72.19	36.8	1.961			
July	78.08	38.8	2.013	72.18	36.7	1.968			
August	79.13	38.9	2.033	72.81	36.4	1.992			
September	79.15	38.6	2.052	71.59	35.7	2.006			
October	80.32	38.9	2.064	71.41	35.7	2.001			
November	78.12	37.5	2.085	68.88	34.5	1.996			

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Year and month	Contract construction [2]—Continued																	
	Building construction—Continued																	
	Special-trade contractors—Continued																	
	Electrical work			Masonry			Plastering and lathing			Carpentry			Roofing and sheet-metal work			Excavation and foundation work		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$83.01	39.8	$2.084	$69.61	35.4	$1.969	$78.52	36.1	$2.175	$67.98	37.9	$1.792	$62.47	36.5	$1.710	$66.44	38.9	$1.709
1948: Average	85.11	39.2	2.172	73.44	36.1	2.036	75.91	34.0	2.231	67.78	37.2	1.824	65.38	37.0	1.766	69.00	38.2	1.807
1948: November	87.58	40.4	2.171	72.76	35.9	2.027	78.77	35.3	2.233	69.92	38.2	1.831	65.46	36.9	1.776	65.93	37.7	1.749
December	87.49	40.0	2.186	70.08	34.8	2.030	76.82	34.4	2.230	68.98	37.9	1.821	62.71	35.5	1.768	64.53	36.5	1.767
1949: January	86.38	39.2	2.201	68.83	32.2	2.044	78.66	35.4	2.221	64.95	35.9	1.810	58.91	33.6	1.754	68.00	37.4	1.818
February	85.67	38.8	2.208	65.44	32.1	2.038	77.51	34.6	2.241	64.41	35.7	1.802	58.80	33.6	1.748	66.11	36.6	1.807
March	86.84	39.3	2.209	68.04	33.4	2.036	80.27	35.2	2.283	65.00	36.7	1.773	61.80	35.3	1.740	66.51	37.1	1.793
April	87.01	39.2	2.220	70.97	35.2	2.018	79.88	34.7	2.303	67.09	38.1	1.763	63.99	36.9	1.735	70.28	38.9	1.803
May	87.02	39.3	2.215	71.23	35.0	2.034	83.73	35.8	2.338	67.00	38.0	1.763	64.20	36.8	1.743	71.93	39.0	1.843
June	86.41	39.2	2.202	71.47	35.1	2.037	84.59	36.0	2.352	66.40	37.0	1.795	64.53	36.7	1.759	72.51	38.9	1.863
July	87.80	39.7	2.210	71.36	35.3	2.021	83.13	35.7	2.330	66.45	36.3	1.831	64.50	36.0	1.750	70.58	37.6	1.878
August	85.80	38.8	2.210	66.31	32.9	2.015	84.39	36.3	2.322	67.22	35.8	1.876	62.95	36.0	1.750	72.22	38.4	1.882
September	86.49	39.0	2.215	70.60	34.7	2.035	81.11	35.0	2.316	68.46	36.1	1.896	65.96	37.1	1.777	69.46	37.3	1.864
October	85.55	38.2	2.241	71.68	35.0	2.047	74.76	32.5	2.302	69.57	36.3	1.915	63.80	36.1	1.769			
November																		

Year and month	Manufacturing																	
	Total: Manufacturing			Durable goods [3]			Nondurable goods [4]			Total: Ordnance and accessories			Food and kindred products					
													Total: Food and kindred products			Meat products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$49.97	40.4	$1.237	$52.46	40.6	$1.292	$46.96	40.1	$1.171	$53.74	41.5	$1.295	48.82	$42.9	$1.138	$54.78	44.3	$1.232
1948: Average	54.14	40.1	1.350	57.11	40.5	1.410	50.61	39.6	1.278	57.20	41.6	1.375	51.87	42.0	1.235	58.37	43.3	1.348
1948: November	55.69	39.8	1.397	59.11	40.4	1.463	51.63	39.2	1.317	59.50	41.9	1.420	53.25	41.8	1.274	60.19	42.9	1.403
December	56.14	40.1	1.400	59.67	40.7	1.466	51.84	39.3	1.319	58.62	41.4	1.416	53.84	41.9	1.285	61.52	44.1	1.395
1949: January	55.50	39.5	1.405	58.83	40.1	1.467	51.35	38.7	1.327	58.08	40.9	1.420	53.62	41.5	1.292	59.89	42.9	1.389
February	55.20	39.4	1.401	58.49	39.9	1.466	51.33	38.8	1.323	59.22	41.3	1.434	53.07	41.3	1.285	55.70	41.2	1.352
March	54.74	39.1	1.400	57.83	39.5	1.464	51.07	38.6	1.323	57.90	39.6	1.462	52.80	40.9	1.291	55.25	40.3	1.371
April	53.80	38.4	1.401	57.21	39.0	1.467	49.67	37.6	1.321	54.13	36.7	1.475	52.33	40.6	1.289	54.98	39.9	1.378
May	54.08	38.6	1.401	57.21	39.0	1.467	50.41	38.1	1.323	55.32	40.3	1.472	53.44	41.3	1.294	56.17	40.7	1.380
June	54.51	38.8	1.405	57.31	38.8	1.477	50.97	38.5	1.324	55.72	39.7	1.479	53.62	41.6	1.289	55.87	40.4	1.383
July	54.63	38.8	1.408	57.82	39.2	1.475	51.55	38.7	1.332	59.64	40.3	1.480	54.69	42.2	1.296	58.02	41.8	1.388
August	54.70	39.1	1.399	57.89	39.3	1.473	51.31	38.9	1.319	58.44	39.7	1.472	53.00	41.7	1.271	56.87	41.0	1.387
September	55.72	39.6	1.407	58.69	39.6	1.482	52.59	39.6	1.328	59.76	40.3	1.483	53.63	41.8	1.283	57.78	41.6	1.389
October	55.26	39.7	1.392	58.17	39.9	1.458	52.55	39.6	1.327	59.97	40.3	1.488	53.92	41.7	1.293	56.38	41.0	1.375
November	54.53	39.2	1.391	57.00	39.2	1.454	52.02	39.2	1.327	59.82	40.2	1.488	54.07	41.4	1.306	60.55	42.7	1.418

Year and month	Manufacturing—Continued																	
	Food and kindred products—Continued																	
	Meat packing			Dairy products			Canning and preserving			Grain-mill products			Flour and other grain-mill products			Prepared feeds		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$55.57	44.6	$1.246	$47.54	45.8	$1.038	$41.33	39.7	$1.041	$51.96	45.7	$1.137	$56.11	49.0	$1.145	$46.38	44.6	$1.040
1948: Average	59.15	43.4	1.363	52.26	45.4	1.151	42.63	38.2	1.116	54.53	44.3	1.231	57.23	46.3	1.236	51.01	45.3	1.126
1948: November	61.16	43.1	1.419	53.39	44.9	1.189	39.41	35.6	1.107	56.06	43.9	1.277	58.82	45.6	1.290	53.61	45.7	1.173
December	62.43	44.4	1.406	53.37	44.7	1.194	42.45	36.5	1.163	55.50	43.6	1.273	58.51	45.5	1.286	51.99	44.7	1.163
1949: January	60.34	43.1	1.400	54.34	44.8	1.213	42.61	36.8	1.158	57.19	44.2	1.294	61.84	46.6	1.327	52.19	44.8	1.165
February	56.13	41.3	1.359	54.59	45.0	1.213	43.89	38.2	1.149	55.51	43.5	1.276	57.79	44.8	1.290	51.10	44.2	1.156
March	55.69	40.3	1.382	53.77	44.4	1.211	42.89	37.2	1.153	55.21	43.1	1.281	55.42	43.4	1.277	53.78	45.5	1.182
April	55.32	39.8	1.390	54.10	44.6	1.213	43.07	36.5	1.180	54.66	42.7	1.280	54.36	42.7	1.273	55.07	46.2	1.192
May	56.64	40.6	1.395	54.47	45.2	1.205	43.65	37.4	1.167	55.81	43.6	1.280	55.90	43.6	1.282	55.88	47.2	1.184
June	56.44	40.4	1.397	55.23	45.6	1.206	42.63	38.3	1.113	57.84	44.7	1.294	58.10	45.0	1.291	57.36	47.6	1.205
July	58.55	41.7	1.404	55.71	45.7	1.219	43.59	39.7	1.098	59.75	45.4	1.316	61.12	46.1	1.326	57.14	47.7	1.198
August	57.34	40.9	1.402	54.72	45.0	1.216	44.27	40.8	1.085	57.46	44.0	1.306	58.70	44.3	1.325	55.75	46.3	1.204
September	58.31	41.5	1.405	55.28	44.4	1.245	44.79	40.1	1.117	58.92	44.3	1.330	62.70	46.8	1.369	56.57	47.1	1.201
October	56.85	40.9	1.390	54.90	44.2	1.242	45.96	40.0	1.149	58.74	44.5	1.320	62.79	46.0	1.365	55.61	46.5	1.196
November	61.17	42.6	1.436	54.42	44.1	1.234	41.14	36.9	1.115	55.25	42.5	1.300	57.10	43.0	1.328	54.38	45.2	1.203

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Food and kindred products—Continued

Year and month	Bakery products			Sugar			Confectionery and related products			Confectionery			Beverages			Bottled soft drinks		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$45.41	42.4	$1.071	$49.17	43.4	$1.133	$41.04	40.0	$1.026	$39.18	39.7	$0.987	$57.60	42.6	$1.352	$44.82	43.9	$1.021
1948: Average	49.35	42.4	1.164	52.04	41.8	1.245	44.00	40.0	1.100	41.46	39.6	1.047	61.43	41.9	1.466	46.26	44.1	1.049
1948: November	50.24	41.9	1.199	56.30	46.0	1.224	45.76	41.0	1.116	43.88	41.2	1.065	64.33	42.1	1.528	46.80	43.7	1.071
December	50.74	41.9	1.211	50.90	40.3	1.263	45.49	40.8	1.115	42.66	40.4	1.056	62.34	41.2	1.513	46.07	42.9	1.074
1949: January	49.82	40.9	1.218	55.04	42.4	1.298	44.70	39.7	1.126	42.28	39.4	1.073	60.90	40.2	1.515	45.82	42.8	1.078
February	51.28	42.1	1.218	54.95	40.2	1.367	43.88	39.0	1.125	41.86	38.9	1.076	61.54	40.3	1.527	47.05	43.4	1.084
March	50.34	41.4	1.216	53.40	39.5	1.352	44.60	39.5	1.129	42.48	39.3	1.081	62.75	40.8	1.538	46.89	43.3	1.083
April	51.07	42.0	1.216	51.45	37.8	1.361	42.71	37.9	1.127	40.56	37.8	1.073	62.29	40.9	1.523	47.09	43.2	1.090
May	51.61	42.1	1.226	55.08	40.5	1.360	42.86	38.1	1.125	40.60	37.8	1.074	64.54	41.8	1.544	48.58	44.0	1.104
June	52.29	42.2	1.239	57.93	42.5	1.363	44.76	39.3	1.139	42.38	39.2	1.081	65.56	42.1	1.558	50.20	44.9	1.118
July	52.62	42.2	1.247	57.72	42.5	1.358	43.69	38.8	1.126	41.39	38.9	1.064	66.79	42.7	1.611	50.69	44.9	1.129
August	51.83	41.5	1.249	56.53	41.2	1.372	45.39	40.2	1.129	42.80	40.0	1.070	66.34	41.4	1.600	49.88	44.1	1.131
September	52.88	42.1	1.256	59.17	43.6	1.357	47.70	42.1	1.133	44.09	41.3	1.066	64.92	40.7	1.595	48.32	43.3	1.116
October	52.37	41.5	1.262	53.25	42.6	1.250	48.39	42.6	1.136	44.74	41.7	1.073	64.48	40.5	1.592	49.37	45.0	1.097
November	52.16	41.2	1.266	59.66	47.2	1.264	45.49	40.8	1.115	43.11	40.9	1.054	63.66	40.1	1.588	48.18	43.6	1.105

Manufacturing—Continued

Food and kindred products—Continued

Tobacco manufactures

Year and month	Malt liquors			Distilled, rectified, and blended liquors			Miscellaneous food products			Total: Tobacco manufactures			Cigarettes			Cigars		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$63.03	43.2	$1.459	$49.37	40.8	$1.210	$47.87	43.2	$1.108	$35.26	38.7	$0.911	$42.40	40.0	$1.060	$32.42	37.7	$0.860
1948: Average	66.40	42.0	1.581	54.92	40.5	1.356	49.74	42.3	1.176	36.50	38.1	.958	44.51	38.6	1.153	32.71	37.6	.870
1948: November	67.77	41.2	1.645	64.12	43.8	1.464	51.47	42.4	1.214	37.07	37.9	.978	43.43	36.4	1.193	34.52	38.7	.892
December	67.03	41.4	1.619	56.98	39.9	1.428	51.61	42.3	1.220	37.50	38.3	.979	45.71	37.9	1.206	33.48	38.0	.881
1949: January	64.68	40.0	1.617	56.55	39.3	1.439	51.91	41.9	1.239	35.69	36.2	.986	43.20	35.5	1.217	32.62	37.2	.877
February	66.21	40.3	1.643	54.80	38.7	1.416	52.00	41.6	1.250	34.94	35.4	.987	42.32	34.8	1.216	31.29	35.8	.874
March	67.98	41.1	1.654	55.15	39.0	1.414	51.42	41.7	1.233	36.21	36.1	1.003	45.11	37.1	1.216	31.12	35.2	.884
April	67.44	41.2	1.637	55.29	38.8	1.425	50.55	40.8	1.239	35.15	34.7	1.013	44.01	35.9	1.226	29.78	33.8	.881
May	70.85	42.5	1.667	55.39	38.9	1.424	51.71	41.7	1.240	36.27	35.7	1.016	43.98	35.9	1.225	31.63	35.7	.886
June	71.74	42.8	1.688	55.11	38.7	1.424	51.41	41.8	1.230	38.57	38.0	1.015	47.78	39.1	1.222	32.99	37.4	.882
July	75.60	43.3	1.746	56.42	39.1	1.443	52.33	42.3	1.237	38.19	37.4	1.021	48.13	39.1	1.231	32.13	36.6	.878
August	72.02	41.7	1.727	57.14	38.9	1.469	53.04	42.5	1.248	38.58	38.7	.997	48.90	39.5	1.238	32.81	37.2	.882
September	69.46	40.5	1.715	60.18	40.2	1.497	52.50	42.2	1.244	38.39	38.9	.987	47.92	38.9	1.232	33.71	38.0	.887
October	69.59	40.2	1.731	58.90	39.8	1.480	53.38	42.5	1.256	37.86	38.2	.991	46.73	37.9	1.233	33.45	37.8	.885
November	67.52	39.3	1.718	63.98	42.2	1.516	53.13	42.1	1.262	38.49	38.0	1.013	47.81	38.9	1.229	34.20	38.0	.900

Manufacturing—Continued

Tobacco manufactures—Continued

Textile-mill products

Year and month	Tobacco and snuff			Tobacco stemming and redrying			Total: Textile-mill products			Yarn and thread mills			Yarn mills			Broad-woven fabric mills		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$35.29	38.4	$0.919	$32.24	40.4	$0.798	$41.26	39.6	$1.042	$37.99	38.8	$0.979	$38.00	38.7	$0.982	$41.52	40.0	$1.038
1948: Average	37.21	37.7	.987	34.24	40.0	.856	45.59	39.2	1.163	41.49	38.1	1.089	41.42	37.9	1.093	46.13	39.6	1.165
1948: November	38.91	38.0	1.024	30.92	36.9	.838	45.49	38.0	1.197	39.59	35.7	1.109	39.66	35.6	1.114	45.81	38.4	1.193
December	39.12	39.2	.998	34.29	39.5	.868	45.93	38.4	1.196	40.33	36.4	1.108	40.33	36.2	1.114	46.13	38.7	1.192
1949: January	37.02	36.4	1.017	29.26	33.1	.884	44.89	37.8	1.197	39.32	35.3	1.114	39.39	35.2	1.119	44.79	37.7	1.188
February	37.09	35.8	1.036	30.68	34.4	.892	45.01	37.7	1.194	39.77	35.8	1.111	39.99	35.8	1.117	44.83	37.8	1.186
March	38.02	36.7	1.036	35.31	37.8	.934	44.19	37.2	1.188	39.21	35.2	1.114	39.05	34.9	1.119	43.28	36.8	1.176
April	36.82	35.2	1.046	34.02	35.4	.961	42.20	35.7	1.182	37.85	34.1	1.110	37.99	34.1	1.114	41.08	35.2	1.167
May	37.35	35.5	1.052	34.55	35.0	.987	41.91	35.4	1.184	37.66	33.9	1.108	37.66	33.9	1.111	40.52	34.6	1.171
June	40.30	38.2	1.055	38.14	38.1	1.001	42.98	36.3	1.184	39.10	35.1	1.114	39.32	35.2	1.117	42.09	35.7	1.179
July	40.02	37.4	1.070	36.22	36.4	.995	43.26	36.6	1.182	39.73	35.6	1.116	39.84	35.6	1.119	42.87	36.3	1.181
August	40.35	38.1	1.059	36.59	42.9	.853	44.37	37.6	1.180	40.33	36.5	1.105	40.33	36.4	1.108	44.41	37.6	1.181
September	40.92	38.1	1.074	34.47	42.3	.815	45.83	38.6	1.187	42.07	37.9	1.110	41.88	37.7	1.111	45.74	38.5	1.188
October	39.81	37.7	1.056	33.82	40.5	.835	47.16	39.5	1.194	43.04	38.6	1.115	43.04	38.5	1.118	47.60	39.6	1.202
November	39.58	37.3	1.061	32.24	36.1	.893	47.16	39.5	1.194	43.49	38.8	1.121	43.38	38.7	1.121	47.65	39.8	1.196

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Textile-mill products—Continued

Year and month	Cotton, silk, synthetic fiber [2]			Woolen and worsted			Knitting mills			Full-fashioned hosiery [2]			Seamless hosiery [2]			Knit outerwear		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$40.30	40.1	$1.005	$46.28	40.0	$1.157	$37.78	37.9	$0.997	$46.92	38.3	$1.225	$29.68	36.2	$0.820	$37.73	38.0	$0.993
1948: Average	44.38	39.4	1.126	52.45	40.1	1.308	41.14	37.5	1.097	52.85	38.8	1.362	30.27	35.2	.860	39.75	38.0	1.046
1948: November	44.20	38.2	1.157	51.85	39.1	1.326	42.48	37.1	1.145	55.88	39.8	1.404	30.36	34.3	.885	41.49	38.7	1.073
December	44.54	38.5	1.157	52.56	39.7	1.324	41.65	36.5	1.141	53.63	38.2	1.404	30.38	34.4	.882	40.11	37.7	1.064
1949: January	42.97	37.3	1.152	52.11	39.3	1.326	40.88	35.7	1.145	52.05	37.1	1.403	30.13	33.7	.894	41.82	38.4	1.089
February	43.28	37.5	1.154	51.43	39.2	1.312	41.09	36.3	1.132	51.66	37.3	1.385	30.94	35.0	.884	41.24	37.8	1.091
March	42.13	36.7	1.148	48.30	37.1	1.302	41.39	36.5	1.134	51.72	37.4	1.383	30.74	34.7	.886	41.27	38.0	1.086
April	40.98	35.1	1.142	46.58	36.0	1.294	39.87	35.1	1.136	50.31	36.3	1.386	30.31	34.1	.889	39.20	35.6	1.101
May	39.02	34.2	1.141	47.88	36.8	1.301	40.07	35.3	1.135	50.87	36.6	1.390	29.57	33.6	.880	40.80	37.4	1.091
June	39.78	34.8	1.143	51.64	39.3	1.314	40.73	36.2	1.125	51.11	36.9	1.385	30.50	34.7	.879	40.46	37.6	1.076
July	40.46	35.4	1.143	52.25	39.7	1.316	40.44	36.3	1.114	50.26	36.5	1.377	30.61	35.3	.867	39.93	38.1	1.048
August	42.71	37.2	1.148	51.16	39.2	1.305	41.11	37.0	1.111	51.56	37.5	1.375	31.40	35.8	.877	39.61	37.8	1.048
September	44.24	38.3	1.155	51.94	39.5	1.315	42.22	37.8	1.117	52.72	38.2	1.380	31.86	36.0	.885	40.69	38.5	1.057
October	46.17	39.6	1.166	53.29	39.8	1.339	43.72	39.0	1.121	55.04	39.6	1.390	33.79	37.8	.894	42.43	39.8	1.066
November	46.56	39.9	1.167	52.34	39.5	1.325	43.27	38.5	1.124	54.68	39.2	1.395	33.80	37.6	.899	42.27	39.5	1.070

Manufacturing—Continued

Textile-mill products—Continued

Year and month	Knit underwear			Dyeing and finishing textiles			Carpets, rugs, other floor coverings			Wool carpets, rugs, and carpet yarn			Other textile-mill products			Fur-felt hats and hat bodies		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$35.36	38.9	$0.909	$47.03	41.8	$1.125	$49.93	41.3	$1.209	$50.35	41.2	$1.222	$44.07	40.1	$1.099	$47.01	35.9	$1.274
1948: Average	37.40	37.7	.992	51.00	41.0	1.244	58.13	42.0	1.384	58.09	41.7	1.393	47.96	39.7	1.208	49.17	36.5	1.347
1948: November	35.79	35.3	1.014	51.18	40.0	1.279	60.92	41.7	1.461	60.82	41.4	1.469	46.55	38.0	1.225	46.09	33.4	1.380
December	35.66	35.1	1.016	52.61	41.2	1.277	60.76	41.7	1.457	60.13	41.1	1.463	48.59	39.5	1.230	51.48	37.2	1.384
1949: January	34.41	33.9	1.015	51.11	39.9	1.281	60.01	41.5	1.446	59.84	40.9	1.463	47.91	38.7	1.238	51.31	36.6	1.402
February	35.18	34.9	1.008	52.60	41.0	1.283	59.55	40.9	1.456	58.47	40.1	1.458	47.97	39.0	1.230	51.77	37.3	1.388
March	36.09	35.7	1.011	52.56	41.0	1.282	58.95	40.6	1.452	58.81	40.2	1.463	47.37	38.8	1.221	49.09	35.7	1.375
April	33.63	33.5	1.004	50.47	39.4	1.281	54.68	38.0	1.439	53.47	36.9	1.449	45.81	37.7	1.215	41.44	29.9	1.386
May	34.04	33.8	1.007	49.49	38.6	1.282	55.29	38.5	1.436	54.58	37.8	1.444	46.24	37.9	1.220	47.81	34.3	1.394
June	35.80	35.8	1.000	49.92	39.4	1.267	51.98	36.5	1.424	49.69	34.7	1.432	47.39	38.4	1.234	52.67	37.3	1.412
July	36.00	36.0	1.000	48.76	38.7	1.260	53.78	37.9	1.419	51.98	36.4	1.428	47.66	38.5	1.238	52.58	37.4	1.412
August	36.85	37.0	.996	50.59	39.9	1.268	54.14	38.1	1.421	53.24	37.1	1.435	47.48	38.6	1.230	50.41	36.4	1.385
September	38.85	38.7	1.004	52.31	40.8	1.282	56.10	39.2	1.431	55.40	38.1	1.454	49.56	39.9	1.242	49.49	35.5	1.394
October	38.66	38.7	.999	52.65	41.2	1.278	57.26	39.9	1.435	57.31	39.2	1.462	48.78	39.5	1.235	45.55	33.3	1.368
November	37.71	37.6	1.003	52.86	41.3	1.280	58.42	40.6	1.439	58.45	39.9	1.465	48.22	39.2	1.230	45.86	32.9	1.394

Manufacturing—Continued

Apparel and other finished textile products

Year and month	Total: Apparel and other finished textile products			Men's and boys' suits and coats			Men's and boys' furnishings and work clothing			Shirts, collars, and nightwear			Separate trousers			Work shirts		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$40.84	36.3	$1.125	$48.26	37.7	$1.280	$31.99	36.6	$0.874	$32.50	37.1	$0.876	$34.53	36.7	$0.941	$25.64	34.6	$0.741
1948: Average	42.79	36.2	1.182	50.11	38.6	1.369	33.20	36.2	.917	33.50	36.1	.928	35.31	35.7	.989	26.49	35.7	.742
1948: November	43.24	36.0	1.201	48.08	35.5	1.353	33.02	35.5	.930	34.12	36.3	.940	32.01	32.6	.982	25.58	33.7	.759
December	42.95	35.7	1.203	48.01	35.3	1.360	32.50	34.8	.934	32.52	34.6	.940	33.79	34.2	.988	25.11	32.4	.775
1949: January	43.10	35.3	1.221	48.07	35.4	1.358	32.05	34.2	.937	31.69	33.5	.946	34.73	34.8	.998	26.85	33.9	.792
February	43.87	36.2	1.212	49.42	36.5	1.354	32.89	35.6	.924	32.79	35.3	.929	35.27	35.7	.988	27.36	35.3	.775
March	43.41	36.3	1.196	50.13	36.7	1.366	33.82	36.4	.929	33.98	36.3	.936	36.96	37.0	.999	28.62	36.5	.784
April	39.53	34.4	1.149	46.30	34.5	1.342	32.49	35.2	.923	33.03	35.4	.933	35.21	35.6	.989	26.45	34.0	.778
May	39.94	35.5	1.125	46.00	34.2	1.345	33.36	36.1	.924	34.09	36.5	.934	36.37	37.0	.983	25.91	33.3	.778
June	40.11	35.4	1.133	43.86	33.3	1.317	32.76	35.8	.915	33.19	35.8	.927	34.56	35.3	.979	26.80	34.9	.768
July	41.03	35.4	1.159	44.93	34.4	1.306	33.03	36.1	.915	32.68	34.8	.939	33.56	35.4	.948	27.60	35.7	.773
August	41.95	35.7	1.175	44.96	33.5	1.342	32.80	36.4	.901	32.02	35.7	.897	34.63	35.7	.970	27.33	36.1	.757
September	44.01	36.8	1.196	47.90	35.4	1.353	33.87	36.9	.918	33.21	36.3	.915	35.79	36.6	.978	28.19	36.7	.768
October	42.70	36.4	1.173	45.90	34.1	1.346	34.30	37.4	.917	34.20	37.3	.917	34.16	35.4	.965	28.27	37.1	.762
November	40.63	35.7	1.138	44.19	33.0	1.339	34.02	36.9	.922	34.85	37.8	.922	33.63	34.6	.972	27.90	36.3	.771

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Apparel and other finished textile products—Continued

Year and month	Women's outerwear			Women's dresses			Household apparel			Women's suits, coats, and skirts			Women's and children's undergarments			Underwear and nightwear, except corsets		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$49.60	35.0	$1.417	$48.68	34.5	$1.383	$30.06	35.7	$0.842	$68.36	35.0	$1.953	$33.62	36.9	$0.911	$32.44	36.2	$0.896
1948: Average	51.49	35.1	1.467	48.72	34.8	1.400	31.89	36.1	.875	70.60	35.0	2.017	33.32	36.6	.966	34.12	36.3	.940
1948: November	52.98	35.2	1.505	47.92	34.3	1.397	32.56	36.3	.897	74.25	35.8	2.074	36.67	37.3	.983	35.65	37.1	.961
December	52.52	35.2	1.492	49.35	34.8	1.418	32.81	36.7	.894	70.89	35.1	2.011	35.45	36.4	.974	34.00	35.9	.947
1949: January	53.81	35.1	1.533	48.63	34.2	1.422	31.88	35.7	.893	75.71	36.4	2.080	33.17	36.0	.977	33.57	35.6	.943
February	53.84	35.8	1.504	48.44	35.0	1.384	32.78	37.0	.886	75.82	36.7	2.066	35.55	36.2	.982	33.93	35.9	.945
March	51.68	35.4	1.460	48.53	35.5	1.367	33.49	37.5	.893	60.46	34.0	2.043	33.86	36.4	.984	34.44	36.1	.954
April	48.42	33.4	1.360	46.58	34.3	1.358	31.89	36.2	.881	56.49	29.7	1.902	33.06	33.8	.978	31.80	33.4	.943
May	48.61	35.0	1.369	48.65	35.2	1.382	34.56	38.1	.907	52.42	30.6	1.713	34.57	35.6	.971	32.67	34.9	.936
June	46.33	34.6	1.339	46.06	34.3	1.343	33.03	37.2	.888	50.91	33.3	1.799	35.32	36.3	.973	33.10	35.4	.935
July	48.51	33.9	1.431	42.66	33.2	1.285	30.71	35.1	.875	66.05	34.1	1.937	33.48	36.8	.964	32.25	34.9	.924
August	50.40	34.4	1.465	46.21	34.1	1.355	30.95	35.3	.874	67.61	34.3	1.971	37.24	38.0	.980	33.84	36.1	.939
September	53.13	35.8	1.484	50.20	35.4	1.418	33.08	37.8	.875	69.73	35.2	1.981	38.10	38.6	.987	35.82	37.7	.950
October	49.84	34.3	1.453	46.58	33.2	1.403	31.45	35.9	.876	65.23	33.4	1.953	37.45	37.9	.988	36.26	38.2	.949
November	46.30	33.7	1.374	44.64	32.8	1.361	32.13	36.6	.878	59.15	31.0	1.908				36.16	38.1	.949

Manufacturing—Continued

Apparel and other finished textile products—Continued

Year and month	Millinery			Children's outerwear			Fur goods and miscellaneous apparel			Other fabricated textile products			Lumber and wood products (except furniture)					
													Total: Lumber and wood products (except furniture)			Logging camps and contractors		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$47.03	35.2	$1.336	$34.33	36.1	$0.951	$39.92	36.8	$1.085	$35.87	37.6	$0.946	$47.36	41.8	$1.133	$55.15	38.3	$1.440
1948: Average	50.22	34.8	1.443	36.72	36.5	1.006	42.21	36.7	1.150	38.49	35.0	1.013	51.38	41.5	1.238	60.26	38.7	1.557
1948: November	41.41	29.6	1.399	37.22	36.1	1.031	44.95	37.4	1.202	39.94	38.7	1.032	52.53	41.2	1.275	64.02	39.3	1.629
December	47.58	33.7	1.412	35.93	35.4	1.015	42.98	36.7	1.171	40.01	38.4	1.042	51.13	41.0	1.247	57.55	37.3	1.543
1949: January	50.96	34.5	1.477	37.95	35.9	1.057	39.56	35.2	1.124	39.09	37.8	1.034	49.82	40.7	1.224	55.22	37.9	1.457
February	58.64	37.4	1.568	38.51	38.3	1.061	41.30	36.2	1.141	39.84	38.2	1.043	48.03	39.5	1.216	48.12	35.2	1.367
March	62.29	39.1	1.593	38.47	36.6	1.051	40.20	35.8	1.123	39.31	37.6	1.045	50.21	40.3	1.246	58.18	38.3	1.519
April	52.49	34.9	1.504	33.23	33.7	.986	37.38	32.7	1.143	38.90	37.3	1.043	51.82	40.5	1.272	62.76	38.5	1.630
May	46.48	31.9	1.457	35.14	36.0	.976	40.14	34.1	1.177	39.97	38.1	1.049	52.94	41.1	1.288	64.78	40.5	1.599
June	46.06	31.7	1.453	36.04	35.9	1.004	42.28	35.2	1.201	40.52	38.3	1.058	52.91	40.7	1.300	64.96	40.0	1.624
July	51.35	34.6	1.484	37.09	36.8	1.008	42.18	35.0	1.205	39.61	37.8	1.048	50.75	39.4	1.288	60.20	37.6	1.601
August	54.40	36.1	1.507	37.38	36.9	1.013	42.54	36.3	1.172	39.77	38.2	1.041	52.87	40.7	1.299	67.16	41.1	1.634
September	64.40	39.8	1.618	38.18	37.1	1.029	44.35	37.3	1.189	40.86	38.8	1.053	52.83	40.7	1.298	64.08	40.0	1.602
October	54.19	35.7	1.518	37.56	36.5	1.029	45.58	38.3	1.190	41.08	39.2	1.048	53.96	41.6	1.297	65.00	40.6	1.601
November	44.61	29.8	1.497	36.63	36.2	1.012	44.41	37.7	1.178	39.11	37.9	1.032	52.40	41.1	1.275	59.56	38.6	1.543

Manufacturing—Continued

Lumber and wood products (except furniture)—Continued

Year and month	Sawmills and planing mills			Sawmills and planing mills, general [4]			Millwork, plywood, and prefabricated structural wood products			Millwork			Wooden containers			Wooden boxes, other than cigar		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$47.88	42.0	$1.140	$48.55	42.0	$1.156	$49.65	43.4	$1.144	$47.67	43.1	$1.106	$39.08	41.8	$0.935	$39.88	42.7	$0.927
1948: Average	51.83	41.5	1.249	51.87	41.4	1.253	54.95	43.3	1.269	53.40	43.2	1.236	41.87	41.4	1.004	42.39	42.1	1.007
1948: November	52.52	41.0	1.281	53.17	40.9	1.300	56.42	43.2	1.306	54.65	43.1	1.268	41.96	41.1	1.021	42.95	41.9	1.025
December	51.24	40.8	1.256	51.68	40.6	1.273	56.03	42.8	1.309	54.99	43.2	1.273	42.49	41.7	1.019	43.08	42.4	1.016
1949: January	50.59	40.8	1.240	49.27	39.2	1.257	53.02	41.1	1.290	52.63	41.7	1.262	40.84	40.8	1.001	40.91	41.2	.993
February	48.73	39.3	1.240	49.27	39.2	1.257	53.02	41.1	1.290	52.37	41.4	1.265	40.62	40.7	.998	40.37	40.9	.987
March	50.85	40.2	1.265	51.50	40.2	1.281	53.69	41.3	1.300	52.62	41.3	1.274	40.48	40.4	1.002	40.54	40.7	.996
April	52.29	40.6	1.288	52.98	40.6	1.305	54.62	41.6	1.313	52.29	41.7	1.278	40.52	40.2	1.008	40.80	40.6	1.006
May	53.78	41.1	1.308	54.42	41.1	1.324	55.09	41.8	1.318	54.08	42.1	1.284	41.66	40.8	1.021	42.11	41.0	1.027
June	53.56	40.7	1.316	54.21	40.7	1.332	55.22	41.8	1.321	53.19	41.2	1.291	42.19	40.3	1.047	42.82	40.7	1.052
July	51.25	39.3	1.304	51.88	39.3	1.320	52.74	40.2	1.312	53.71	41.7	1.288	42.40	40.3	1.052	43.31	40.9	1.059
August	53.53	40.8	1.312	54.14	40.8	1.327	54.19	41.3	1.312	54.91	42.4	1.295	42.03	39.8	1.056	42.91	40.1	1.070
September	53.35	40.6	1.314	54.04	40.6	1.331	55.66	42.1	1.322	56.51	43.5	1.299	43.04	40.6	1.060	43.89	41.1	1.068
October	54.54	41.6	1.311	55.20	41.5	1.330	57.02	43.1	1.323	55.60	42.8	1.299	43.01	41.0	1.049	44.67	41.9	1.066
Noyember	53.24	41.3	1.289	53.89	41.2	1.308	55.19	42.0	1.314				41.85	40.4	1.036	42.60	40.8	1.044

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Year and month	Lumber and wood products (except furniture)—Con.			Furniture and fixtures													
	Miscellaneous wood products			Total: Furniture and fixtures			Household furniture			Wood household furniture, except upholstered			Wood household furniture, upholstered			Mattresses and bedsprings		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$41.22	42.1	$0.979	$45.64	41.6	$1.097	$44.61	41.6	$1.038	$41.19	41.9	$0.983	$47.23	40.4	$1.169	$48.94	41.3	$1.185
1948: Average	44.06	42.0	1.049	48.99	41.1	1.192	46.76	40.8	1.146	43.84	41.2	1.064	50.33	40.1	1.255	50.85	40.1	1.268
1948: November	45.13	41.9	1.077	50.02	40.7	1.229	47.63	40.4	1.179	44.84	40.6	1.097	52.97	40.9	1.295	50.54	39.0	1.296
December	45.13	42.1	1.072	50.76	41.2	1.232	48.26	40.9	1.180	45.65	41.5	1.100	51.83	39.9	1.299	50.71	39.1	1.297
1949: January	44.70	41.7	1.072	48.34	39.4	1.227	45.40	38.7	1.173	43.06	39.4	1.093	48.96	36.6	1.283	48.38	37.5	1.290
February	44.47	41.6	1.069	48.09	39.8	1.231	46.22	39.3	1.176	43.24	39.6	1.092	47.43	37.2	1.275	51.43	39.5	1.302
March	44.23	41.3	1.071	48.87	39.6	1.234	46.37	39.3	1.180	43.22	39.4	1.097	47.96	37.5	1.279	51.40	39.6	1.299
April	43.66	40.8	1.070	47.60	38.7	1.230	45.06	38.3	1.177	41.68	38.2	1.091	47.82	37.3	1.282	49.67	38.5	1.290
May	44.06	40.7	1.083	47.59	38.5	1.236	44.92	38.0	1.182	41.54	37.9	1.096	48.54	36.5	1.275	49.43	38.2	1.294
June	43.68	40.0	1.092	48.36	39.0	1.240	45.70	38.6	1.184	42.09	38.4	1.096	47.39	37.2	1.274	52.00	40.0	1.300
July	43.02	39.4	1.092	47.86	38.6	1.240	44.80	38.0	1.179	41.06	37.7	1.089	46.87	36.7	1.277	51.21	39.7	1.290
August	43.52	40.0	1.088	49.09	40.4	1.230	47.23	40.3	1.172	43.17	40.2	1.074	49.82	39.2	1.271	53.94	41.4	1.303
September	43.96	40.0	1.099	50.72	41.0	1.237	48.74	41.1	1.186	44.17	40.9	1.080	52.07	40.3	1.292	57.13	42.6	1.341
October	45.14	41.0	1.101	51.50	41.8	1.232	49.73	42.0	1.184	46.11	42.5	1.085	53.74	41.5	1.295	54.14	41.2	1.314
November	44.87	40.9	1.097	50.72	41.3	1.228	48.81	41.4	1.179	46.62	42.5	1.097	55.62	42.2	1.318	46.12	36.6	1.260

Manufacturing—Continued

Year and month	Furniture and fixtures—Continued			Paper and allied products									Printing, publishing, and allied industries		
	Other furniture and fixtures			Total: Paper and allied products			Pulp, paper, and paperboard mills			Paperboard containers and boxes			Other paper and allied products			Total: Printing, publishing, and allied industries		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$50.25	41.7	$1.205	$50.21	43.1	$1.165	$54.10	44.2	$1.224	$46.24	42.0	$1.101	$45.74	41.7	$1.097	$60.75	40.1	$1.515
1948: Average	54.59	41.7	1.309	55.25	42.8	1.291	59.88	44.0	1.361	50.96	41.7	1.222	49.48	41.3	1.198	66.73	39.3	1.698
1948: November	56.37	41.6	1.355	57.27	42.9	1.335	61.94	43.9	1.411	53.04	42.3	1.254	51.50	41.3	1.247	68.36	39.2	1.744
December	57.08	42.0	1.359	56.66	42.6	1.330	60.79	43.3	1.404	52.37	42.0	1.247	52.08	41.6	1.252	69.30	39.6	1.750
1949: January	55.88	41.3	1.353	55.54	41.6	1.335	59.91	42.7	1.403	50.29	40.1	1.254	51.07	40.6	1.258	67.59	38.6	1.751
February	55.90	41.1	1.365	54.84	41.2	1.331	58.72	42.0	1.398	50.08	40.0	1.252	51.12	40.7	1.256	68.32	38.6	1.770
March	55.11	40.4	1.364	54.45	41.0	1.328	58.17	41.7	1.395	49.95	39.9	1.252	50.58	40.4	1.252	69.56	38.6	1.802
April	53.74	39.6	1.357	53.48	40.3	1.327	57.35	41.2	1.392	48.81	38.8	1.258	49.84	40.0	1.246	69.39	38.4	1.807
May	54.13	39.8	1.360	53.73	40.4	1.330	57.58	41.1	1.401	49.49	39.4	1.256	49.51	39.8	1.244	70.40	38.7	1.819
June	54.86	40.1	1.368	54.54	40.7	1.340	57.95	41.1	1.410	51.38	40.3	1.275	50.13	40.2	1.247	70.47	38.7	1.821
July	55.44	40.2	1.379	55.37	41.1	1.352	59.65	41.8	1.427	51.63	40.4	1.278	50.90	40.4	1.260	70.45	38.6	1.825
August	55.94	40.8	1.371	56.26	41.8	1.346	60.32	42.6	1.416	53.00	41.5	1.277	50.82	40.3	1.261	70.69	38.5	1.836
September	55.91	40.9	1.367	57.64	42.6	1.353	61.06	43.0	1.420	55.30	42.9	1.289	52.49	41.3	1.271	72.02	39.1	1.842
October	55.85	41.1	1.359	58.31	43.1	1.353	62.10	43.7	1.421	56.07	43.5	1.289	52.58	41.4	1.270	71.41	38.6	1.850
November	55.94	41.1	1.361	58.22	43.0	1.354	62.05	43.7	1.420	56.03	43.4	1.291	51.98	40.9	1.271	70.96	38.5	1.843

Manufacturing—Continued

Printing, publishing, and allied industries—Continued

Year and month	Newspapers			Periodicals			Books			Commercial printing			Lithographing			Other printing and publishing		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$65.78	37.5	$1.754	$67.30	43.0	$1.565	$54.06	40.4	$1.338	$60.65	41.2	$1.472	$59.08	41.4	$1.427	$55.32	40.0	$1.383
1948: Average	74.00	37.6	1.968	69.55	40.6	1.713	57.43	38.7	1.484	66.33	40.3	1.646	64.15	39.5	1.624	59.93	39.3	1.525
1948: November	76.76	37.7	2.036	70.12	40.9	1.753	59.89	38.9	1.532	67.37	40.1	1.680	67.15	40.6	1.654	60.61	38.9	1.558
December	79.39	38.5	2.062	66.77	39.0	1.712	58.25	38.4	1.517	68.58	40.7	1.685	66.79	40.6	1.645	62.32	39.9	1.562
1949: January	74.83	36.9	2.028	67.40	38.6	1.746	58.33	37.9	1.539	67.77	40.1	1.690	64.45	38.0	1.696	61.43	39.0	1.575
February	75.65	37.1	2.039	69.70	39.2	1.778	59.21	38.4	1.542	67.91	39.6	1.715	65.70	38.4	1.711	61.93	39.0	1.588
March	76.72	37.1	2.068	70.67	39.0	1.812	60.53	38.7	1.564	69.26	39.6	1.749	67.14	38.7	1.735	62.14	39.0	1.619
April	78.43	37.6	2.086	69.61	38.8	1.794	60.68	38.7	1.568	68.42	39.3	1.741	66.14	37.9	1.745	61.56	38.0	1.620
May	80.02	37.8	2.117	68.62	38.4	1.787	60.53	38.7	1.564	69.51	39.7	1.751	67.86	38.6	1.758	61.62	38.2	1.613
June	78.73	37.4	2.105	68.91	38.8	1.776	59.50	37.8	1.574	70.80	40.0	1.770	68.87	39.0	1.766	61.75	38.4	1.608
July	78.02	37.1	2.103	70.21	38.6	1.819	60.87	38.5	1.581	70.05	39.8	1.760	67.75	38.3	1.769	62.89	38.7	1.625
August	77.80	36.8	2.114	70.90	39.0	1.818	63.30	39.1	1.619	69.66	39.6	1.759	71.22	39.5	1.803	63.24	38.4	1.647
September	80.14	37.5	2.137	74.20	40.0	1.855	65.17	40.3	1.617	70.22	39.9	1.760	73.71	40.7	1.811	63.09	38.8	1.626
October	80.18	37.5	2.138	71.23	38.9	1.831	61.56	38.5	1.599	70.19	39.5	1.777	73.28	40.6	1.805	61.89	37.6	1.646
November	79.35	37.2	2.133	70.33	38.6	1.822	60.06	37.4	1.606	69.84	39.3	1.777	71.93	40.5	1.776	63.77	39.0	1.635

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Chemical and allied products

Year and month	Total: Chemicals and allied products			Industrial inorganic chemicals			Industrial organic chemicals			Plastics, except synthetic rubber			Synthetic rubber			Synthetic fibers		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$51.13	41.5	$1.232	$55.56	40.3	$1.381	$52.79	40.3	$1.310	$53.96	41.6	$1.297	$56.81	39.7	$1.431	$49.02	39.5	$1.241
1948: Average	56.23	41.5	1.355	62.13	40.9	1.519	57.69	40.4	1.428	58.75	41.4	1.419	62.88	39.9	1.576	53.08	39.5	1.343
1948: November	57.92	41.7	1.389	63.78	40.7	1.567	59.93	40.3	1.487	59.94	41.0	1.462	63.55	39.3	1.617	55.73	39.5	1.411
December	58.35	41.8	1.396	63.85	40.8	1.565	60.05	40.3	1.490	59.51	40.9	1.455	64.96	40.1	1.620	56.09	39.5	1.420
1949: January	57.70	41.1	1.404	64.20	41.1	1.562	59.36	39.6	1.499	61.59	41.5	1.484	64.40	40.0	1.610	55.55	39.2	1.417
February	57.81	41.0	1.410	63.37	40.7	1.557	60.37	39.9	1.513	60.38	40.8	1.480	64.24	39.9	1.610	55.26	39.0	1.417
March	57.51	40.9	1.406	62.55	40.3	1.552	59.69	39.4	1.515	58.96	40.0	1.474	65.11	39.2	1.661	55.03	38.7	1.422
April	57.45	40.6	1.415	62.08	40.5	1.535	59.17	38.8	1.525	58.05	39.3	1.477	64.87	38.8	1.672	53.63	37.5	1.430
May	58.20	40.7	1.430	62.59	40.2	1.557	60.09	39.2	1.533	58.21	39.2	1.485	67.02	39.8	1.684	55.32	38.5	1.437
June	59.08	40.8	1.448	65.41	41.4	1.580	60.56	39.2	1.545	59.68	39.6	1.507	67.07	39.9	1.681	54.65	38.2	1.430
July	59.44	40.6	1.464	64.00	40.3	1.588	61.50	39.3	1.565	59.78	39.8	1.502	68.21	39.0	1.749	55.13	38.1	1.447
August	58.77	40.5	1.451	63.20	40.1	1.576	60.68	39.2	1.548	59.56	40.0	1.489	67.62	39.8	1.699	54.02	37.7	1.433
September	59.66	41.4	1.441	64.96	40.7	1.596	62.33	39.8	1.566	62.45	41.3	1.512	67.97	39.7	1.712	55.96	38.7	1.446
October	59.51	41.7	1.427	64.55	40.8	1.582	62.08	39.9	1.556	62.13	41.2	1.508	69.19	40.7	1.700	55.63	38.9	1.430
November	59.57	41.6	1.432	64.76	40.6	1.595	62.40	40.1	1.556	61.76	40.9	1.510	67.94	40.2	1.690	56.34	39.4	1.430

Manufacturing—Continued

Chemicals and allied products—Continued

Year and month	Drugs and medicines			Paints, pigments, and fillers			Fertilizers			Vegetable and animal oils and fats			Other chemicals and allied products			Soap and glycerin		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$48.23	40.7	$1.185	$53.34	42.3	$1.261	$40.07	42.4	$0.945	$46.19	46.8	$0.987	$52.54	41.6	$1.263	$59.33	42.8	$1.386
1948: Average	53.71	40.6	1.323	58.40	42.2	1.384	42.33	41.5	1.020	50.39	47.4	1.063	57.90	41.3	1.402	68.90	42.0	1.569
1948: November	56.24	40.9	1.375	59.32	41.6	1.426	41.83	39.8	1.051	51.71	50.6	1.022	59.49	41.2	1.444	68.18	41.8	1.631
December	56.36	41.2	1.368	59.14	41.3	1.432	42.98	40.7	1.056	53.28	50.6	1.053	59.80	41.1	1.455	68.17	41.9	1.627
1949: January	56.45	40.7	1.387	58.45	40.9	1.429	42.80	40.8	1.049	50.91	48.3	1.054	59.58	40.5	1.471	65.24	40.6	1.607
February	56.52	40.8	1.392	58.97	40.7	1.449	43.12	41.5	1.039	49.93	46.4	1.076	59.50	40.7	1.462	65.61	40.6	1.616
March	56.37	40.7	1.385	58.51	40.5	1.452	44.12	42.3	1.043	50.96	47.1	1.082	59.23	40.4	1.466	64.92	40.5	1.603
April	55.78	40.1	1.391	58.92	41.1	1.458	45.13	42.3	1.067	50.18	45.7	1.098	59.12	40.3	1.467	63.96	40.0	1.599
May	56.68	40.4	1.403	59.22	40.7	1.455	46.67	42.7	1.093	51.30	45.8	1.120	59.89	40.6	1.475	65.37	40.5	1.614
June	56.28	40.2	1.400	59.90	41.2	1.454	46.58	42.5	1.096	52.12	45.2	1.153	60.94	40.9	1.490	66.34	40.9	1.622
July	56.40	40.0	1.410	59.31	40.9	1.450	46.87	42.3	1.108	52.69	44.5	1.184	61.32	40.8	1.503	67.56	40.8	1.656
August	56.32	40.0	1.408	59.51	41.1	1.448	45.21	41.1	1.100	52.30	44.7	1.170	61.02	40.9	1.492	66.79	41.1	1.625
September	56.96	40.4	1.410	60.88	41.5	1.467	44.99	40.9	1.100	51.02	48.0	1.063	62.12	41.3	1.504	68.30	41.7	1.638
October	57.16	40.6	1.408	60.86	41.4	1.470	43.70	40.8	1.071	51.13	49.5	1.033	62.84	41.7	1.507	68.97	41.9	1.646
November	57.59	40.7	1.415	60.27	41.0	1.470	42.91	40.1	1.070	51.23	49.5	1.035	61.86	41.1	1.505	67.48	41.3	1.634

Manufacturing—Continued

Year and month	Products of petroleum and coal									Rubber products					
	Total: Products of petroleum and coal			Petroleum refining			Coke and byproducts			Other petroleum and coal products			Total: Rubber products			Tires and inner tubes		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$60.89	40.7	$1.496	$62.95	40.2	$1.566	$52.17	39.4	$1.324	$55.03	44.2	$1.245	$55.32	39.8	$1.390	$61.75	38.8	$1.604
1948: Average	69.23	40.7	1.701	72.06	40.3	1.788	58.86	39.7	1.475	60.59	44.1	1.374	56.78	39.0	1.456	62.16	37.2	1.671
1948: November	72.60	40.4	1.797	75.92	40.0	1.898	61.21	39.9	1.534	60.52	42.8	1.414	58.20	38.7	1.504	62.66	36.2	1.731
December	71.59	40.4	1.772	75.02	40.4	1.857	61.87	40.2	1.539	56.75	40.8	1.391	57.67	38.5	1.498	61.20	35.6	1.719
1949: January	73.29	41.2	1.779	77.02	41.5	1.856	62.24	40.1	1.552	55.26	39.9	1.385	56.89	37.9	1.501	60.72	33.3	1.822
February	70.82	39.9	1.775	73.89	39.9	1.852	61.77	39.9	1.548	56.10	39.9	1.406	56.85	37.7	1.509	60.90	33.4	1.822
March	70.92	40.0	1.773	74.00	40.0	1.850	61.18	39.6	1.545	57.43	40.7	1.411	55.43	37.0	1.498	61.50	33.8	1.818
April	71.26	40.1	1.777	73.95	39.8	1.858	61.54	39.7	1.550	60.08	42.4	1.417	55.50	36.9	1.504	60.92	33.4	1.821
May	72.12	40.7	1.772	75.21	40.5	1.857	60.83	39.6	1.536	60.09	42.8	1.404	57.08	37.7	1.514	63.20	34.8	1.816
June	71.84	40.2	1.787	74.73	39.9	1.873	61.00	39.2	1.556	60.54	43.0	1.408	58.29	39.2	1.528	64.00	36.6	1.751
July	73.59	40.7	1.808	76.60	40.4	1.896	61.47	39.2	1.568	62.03	43.9	1.413	58.37	38.4	1.520	64.45	36.6	1.761
August	72.38	40.3	1.796	75.10	39.8	1.887	60.79	39.4	1.543	63.26	44.3	1.428	57.72	38.3	1.507	62.32	36.0	1.731
September	74.47	41.1	1.812	77.11	40.5	1.904	61.43	39.1	1.571	67.43	46.6	1.447	61.01	40.3	1.514	60.93	39.1	1.789
October	74.09	41.0	1.807	76.13	40.3	1.889	61.80	39.5	1.557	67.41	45.7	1.475	59.61	39.4	1.513	64.83	37.3	1.738
November	71.94	39.9	1.803	75.10	39.8	1.887	57.61	38.6	1.574	61.98	42.6	1.455	58.10	38.5	1.509	64.02	36.9	1.735

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Year and month	Rubber products—Continued						Leather and leather products											
	Rubber footwear			Other rubber products			Total: Leather and leather products			Leather			Footwear (except rubber)			Other leather products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$48.31	41.5	$1.164	$49.53	40.8	$1.214	$40.61	38.6	$1.052	$50.76	40.8	$1.244	$39.14	38.3	$1.202	$38.64	38.3	$1.009
1948: Average	51.75	41.8	1.238	52.47	40.3	1.302	41.66	37.2	1.120	53.26	39.6	1.345	39.71	36.6	1.085	40.49	37.7	1.074
1948: November	54.04	41.6	1.299	54.54	40.4	1.350	40.88	35.7	1.145	54.02	39.2	1.378	37.87	34.3	1.104	41.66	37.6	1.108
December	54.82	42.3	1.296	54.88	40.5	1.355	42.41	37.1	1.143	55.28	40.0	1.382	40.22	36.5	1.102	40.70	37.0	1.100
1949: January	51.86	40.2	1.290	54.38	40.1	1.356	42.30	37.2	1.137	54.29	39.6	1.371	40.63	36.9	1.101	39.89	36.7	1.087
February	48.15	37.5	1.284	54.05	40.1	1.348	42.83	37.7	1.136	54.47	39.5	1.379	41.07	37.3	1.101	41.23	38.0	1.085
March	42.07	33.6	1.252	52.49	39.2	1.339	42.56	37.5	1.135	53.41	38.7	1.380	40.96	37.2	1.101	40.76	37.5	1.087
April	46.65	37.2	1.254	51.69	38.4	1.346	40.74	35.8	1.138	52.29	38.0	1.376	38.68	35.1	1.102	39.93	36.5	1.094
May	48.39	38.5	1.257	52.51	39.1	1.343	40.05	35.1	1.141	53.03	38.4	1.381	37.37	34.0	1.099	40.11	36.4	1.102
June	50.35	39.4	1.278	53.85	39.8	1.353	41.46	36.5	1.136	54.39	39.1	1.391	39.24	36.0	1.090	40.55	36.6	1.108
July	48.84	38.7	1.262	54.11	40.2	1.346	41.74	37.0	1.128	53.19	38.1	1.396	39.98	36.8	1.088	40.70	37.1	1.097
August	48.78	38.9	1.254	55.46	40.6	1.366	42.00	37.2	1.129	54.34	38.9	1.397	40.04	36.7	1.091	40.83	37.6	1.086
September	51.71	40.4	1.280	56.50	41.3	1.368	41.99	36.8	1.141	54.76	39.0	1.404	39.74	36.0	1.104	41.46	38.0	1.091
October	49.81	39.1	1.274	57.20	41.6	1.375	41.61	36.4	1.143	55.09	39.1	1.409	38.65	35.1	1.101	42.24	38.4	1.100
November	50.55	39.9	1.267	54.09	39.6	1.366	40.08	35.1	1.142	54.54	38.9	1.402	36.43	33.3	1.094	41.58	37.8	1.100

Manufacturing—Continued

Year and month	Stone, clay, and glass products																	
	Total: Stone, clay, and glass products			Glass and glass products			Glass containers			Pressed and blown glass			Cement, hydraulic			Structural clay products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$49.07	41.1	$1.194	$50.13	39.6	$1.266	$49.78	40.6	$1.226	$45.39	39.5	$1.149	$49.56	42.0	$1.180	$45.07	40.6	$1.110
1948: Average	53.46	40.9	1.307	54.06	39.2	1.379	52.05	39.7	1.311	47.61	38.8	1.227	54.76	41.9	1.307	49.57	40.4	1.227
1948: November	55.18	40.6	1.359	55.91	38.8	1.441	53.54	39.4	1.359	48.28	37.6	1.284	55.67	41.3	1.348	51.21	40.2	1.274
December	55.72	41.0	1.359	57.45	39.7	1.447	53.35	39.0	1.368	51.78	39.8	1.301	55.54	41.6	1.335	51.43	40.4	1.273
1949: January	54.50	40.1	1.359	57.30	39.3	1.458	53.07	38.4	1.382	50.85	39.3	1.294	55.56	41.4	1.342	49.54	39.1	1.267
February	55.02	40.4	1.362	58.53	39.9	1.467	53.92	39.1	1.379	50.73	38.9	1.304	55.29	41.6	1.329	50.25	39.6	1.269
March	54.18	39.9	1.358	56.97	39.1	1.457	53.35	39.2	1.361	50.96	38.9	1.310	55.67	41.7	1.335	49.79	39.3	1.267
April	53.37	39.3	1.358	55.39	38.2	1.450	52.90	38.7	1.367	49.10	38.0	1.292	56.32	41.5	1.357	49.81	39.1	1.274
May	53.90	39.6	1.361	56.81	39.1	1.453	54.53	39.8	1.370	50.25	38.3	1.312	57.68	41.8	1.380	49.94	39.2	1.274
June	53.58	39.4	1.360	55.98	38.9	1.439	54.30	39.9	1.361	49.06	37.9	1.293	58.80	42.0	1.400	49.43	38.8	1.274
July	52.94	38.7	1.368	55.22	37.9	1.457	54.12	39.3	1.377	47.80	36.6	1.306	58.07	41.1	1.413	48.86	38.5	1.269
August	54.17	39.6	1.368	56.08	39.0	1.438	53.74	39.6	1.353	49.15	38.1	1.290	58.36	41.6	1.403	49.51	38.8	1.276
September	54.73	39.6	1.382	55.89	38.2	1.463	51.59	37.3	1.383	50.53	38.9	1.299	59.16	41.6	1.422	50.04	39.0	1.283
October	55.37	40.3	1.374	56.32	39.0	1.444	54.81	40.3	1.360	50.75	39.1	1.298	59.40	42.1	1.411	49.91	38.9	1.283
November	55.14	39.9	1.382	56.24	38.6	1.457	54.62	39.9	1.369	51.39	38.7	1.328	57.65	41.0	1.406	49.91	38.6	1.293

Manufacturing—Continued

Year and month	Stone, clay, and glass products—Continued												Primary metal industries		
	Brick and hollow tile			Pottery and related products			Concrete, gypsum, and plaster products			Concrete products			Other stone, clay, and glass products			Total: Primary metal industries		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$44.58	42.7	$1.044	$45.74	38.7	$1.182	$51.30	45.0	$1.140	$53.61	45.2	$1.186	$50.88	41.6	$1.223	$55.24	39.8	$1.388
1948: Average	49.08	42.5	1.154	49.46	38.7	1.278	56.49	44.8	1.261	56.92	44.4	1.282	55.10	41.0	1.344	61.03	40.1	1.522
1948: November	51.19	42.8	1.196	51.99	39.0	1.333	59.18	44.9	1.318	57.67	43.2	1.335	56.20	40.4	1.391	64.08	40.3	1.590
December	51.22	42.9	1.194	51.37	38.8	1.324	59.27	45.0	1.317	58.48	44.0	1.329	57.15	41.0	1.394	64.12	40.3	1.591
1949: January	48.37	41.2	1.174	50.79	37.9	1.340	56.25	43.4	1.296	56.68	43.1	1.315	55.96	40.2	1.392	63.72	40.0	1.593
February	48.40	41.3	1.172	50.98	38.1	1.338	56.51	43.3	1.305	56.89	43.1	1.320	55.78	40.1	1.391	63.16	39.8	1.587
March	48.09	41.1	1.170	50.46	37.6	1.342	56.47	42.8	1.296	56.10	42.4	1.323	54.91	39.5	1.390	61.70	39.0	1.582
April	49.18	41.5	1.185	49.10	36.7	1.338	55.17	42.5	1.298	55.30	43.8	1.331	53.97	38.8	1.391	60.83	38.4	1.584
May	49.66	41.7	1.191	48.30	36.1	1.338	55.30	42.8	1.292	59.36	44.8	1.325	54.05	38.8	1.393	60.08	38.0	1.581
June	50.01	42.2	1.185	46.59	34.9	1.335	56.20	43.1	1.304	59.98	44.3	1.354	53.72	38.7	1.388	59.82	37.6	1.591
July	48.93	41.5	1.179	42.55	31.9	1.334	57.77	43.8	1.319	60.60	44.3	1.368	52.76	37.9	1.392	58.63	36.9	1.589
August	50.40	42.6	1.183	46.84	34.9	1.342	59.50	44.6	1.334	61.39	44.2	1.389	53.92	38.6	1.391	59.45	37.6	1.581
September	50.68	42.3	1.198	46.82	35.1	1.334	60.30	44.8	1.346	62.62	44.7	1.401	55.57	39.1	1.416	60.42	37.6	1.607
October	51.24	42.7	1.200	50.56	37.7	1.341	60.48	45.0	1.344	61.56	44.8	1.374	55.62	39.7	1.401	58.31	37.5	1.555
November	50.53	42.0	1.203	50.84	37.8	1.345	60.03	44.6	1.346	58.47	42.9	1.363	55.73	39.5	1.411	57.32	36.6	1.566

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Primary metal industries—Continued

Year and month	Blast furnaces, steel works, and rolling mills			Iron and steel foundries			Gray-iron foundries			Malleable-iron foundries			Steel foundries			Primary smelting and refining of nonferrous metals		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$56.12	39.0	$1.439	$54.80	41.2	$1.330	$55.24	42.3	$1.306	$54.39	40.2	$1.353	$53.94	39.6	$1.362	$52.73	41.0	$1.286
1948: Average	62.41	39.5	1.580	58.45	40.7	1.436	57.46	40.9	1.405	59.19	40.4	1.465	59.09	40.0	1.476	58.22	41.0	1.420
1948: November	66.16	40.0	1.654	60.37	40.6	1.487	59.16	40.8	1.450	60.47	39.5	1.531	62.42	40.8	1.530	59.95	40.4	1.484
December	65.87	39.8	1.655	60.52	40.7	1.487	59.25	40.9	1.451	61.36	40.0	1.534	62.06	40.6	1.529	61.01	41.0	1.488
1949: January	66.24	40.0	1.656	58.74	39.5	1.487	57.58	39.6	1.454	58.94	38.7	1.523	60.39	39.6	1.525	61.91	41.0	1.510
February	65.64	39.9	1.645	58.51	39.4	1.486	57.38	39.6	1.449	56.77	37.3	1.522	61.12	40.0	1.528	61.16	40.8	1.499
March	64.90	39.8	1.643	55.50	37.6	1.476	53.92	37.4	1.439	53.80	35.7	1.507	59.40	39.0	1.523	61.09	41.0	1.490
April	64.69	39.4	1.642	53.43	36.2	1.476	51.73	35.9	1.441	52.98	34.9	1.518	58.55	37.3	1.516	61.98	41.3	1.500
May	63.34	38.7	1.634	52.26	35.5	1.472	50.47	35.1	1.438	51.60	34.4	1.500	58.72	36.8	1.514	61.05	40.7	1.500
June	62.21	37.7	1.650	53.47	36.2	1.477	52.67	36.4	1.447	53.70	35.4	1.517	54.75	35.2	1.512	60.71	40.5	1.498
July	59.68	36.4	1.645	53.62	36.3	1.477	52.63	36.4	1.446	53.49	35.1	1.524	55.57	36.8	1.510	59.00	39.1	1.509
August	61.33	37.6	1.631	53.50	36.2	1.478	53.00	36.6	1.448	53.50	35.2	1.520	54.50	35.9	1.518	58.39	39.4	1.482
September	62.07	37.1	1.673	54.39	36.6	1.486	55.04	37.8	1.456	54.01	35.0	1.543	53.41	35.0	1.526	59.24	39.6	1.496
October	55.96	34.1	1.641	54.76	36.9	1.484	55.84	38.3	1.458	52.32	34.4	1.521	55.28	36.2	1.527	59.87	40.7	1.471
November	55.87	34.7	1.610	53.98	36.4	1.483	54.42	37.4	1.455	51.49	33.9	1.519	56.33	36.7	1.535	58.28	39.3	1.483

Manufacturing—Continued

Primary metal industries—Continued

Year and month	Primary smelting and refining of copper, lead, and zinc			Primary refining of aluminum			Rolling, drawing, and alloying of nonferrous metals			Rolling, drawing, and alloying of copper			Rolling, drawing, and alloying of aluminum			Nonferrous foundries		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$51.41	40.9	$1.257	$53.46	40.9	$1.307	$51.89	39.7	$1.307	$54.14	40.1	$1.350	$48.38	38.7	$1.250	$54.92	40.0	$1.373
1948: Average	57.14	40.9	1.397	58.95	41.4	1.424	57.81	40.2	1.438	60.42	40.8	1.481	53.88	39.1	1.378	59.95	40.0	1.499
1948: November	59.01	40.2	1.468	61.27	40.9	1.498	59.81	39.9	1.499	61.44	40.0	1.536	56.87	39.3	1.447	61.54	39.7	1.550
December	60.37	40.9	1.476	60.89	41.2	1.478	61.47	40.9	1.503	63.65	41.2	1.545	57.70	39.9	1.446	63.51	40.4	1.572
1949: January	61.58	40.9	1.505	61.59	41.5	1.484	59.77	39.9	1.498	61.37	39.8	1.542	58.02	40.1	1.447	61.46	39.5	1.556
February	60.75	40.8	1.489	60.68	41.0	1.480	57.99	39.0	1.487	58.45	38.3	1.526	57.70	39.9	1.446	61.46	39.5	1.556
March	60.53	40.9	1.480	60.66	41.1	1.476	55.09	37.3	1.477	54.09	35.8	1.511	55.81	39.0	1.431	59.48	38.6	1.541
April	61.18	41.2	1.485	62.81	41.9	1.499	52.99	36.1	1.468	50.38	33.5	1.504	55.65	39.0	1.427	58.79	38.0	1.547
May	60.22	40.5	1.487	61.07	41.1	1.486	53.62	36.5	1.469	51.92	34.5	1.505	55.30	38.7	1.429	59.01	37.9	1.557
June	59.85	40.3	1.485	60.91	41.1	1.482	55.17	37.3	1.479	53.18	36.4	1.516	54.89	38.2	1.437	59.94	38.5	1.557
July	57.77	38.8	1.489	61.10	41.2	1.483	56.36	37.9	1.487	57.42	37.8	1.519	55.02	38.0	1.448	60.57	38.8	1.561
August	56.78	39.2	1.448	61.92	40.9	1.514	58.89	39.0	1.510	61.26	39.6	1.547	55.48	38.0	1.460	60.14	38.4	1.558
September	57.51	39.2	1.467	62.23	41.1	1.514	59.65	39.5	1.510	61.96	40.0	1.549	55.83	38.4	1.454	61.80	39.3	1.565
October	57.47	40.3	1.426	64.45	42.4	1.520	61.84	40.5	1.527	64.69	41.1	1.574	57.41	39.4	1.457	62.37	39.5	1.579
November	55.98	38.9	1.439	64.83	40.8	1.589	63.89	41.3	1.547	65.72	41.7	1.576	59.08	40.3	1.466	61.89	39.0	1.587

Manufacturing—Continued

Year and month	Primary metal industries—Continued: Other primary metal industries			Primary metal industries—Continued: Iron and steel forgings			Primary metal industries—Continued: Wire drawing			Fabricated metal products (except ordnance, machinery, and transportation equipment): Total: Fabricated metal products (except ordnance, machinery, and transportation equipment)			Tin cans and other tinware			Cutlery, hand tools, and hardware		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$56.94	40.5	$1.406	$59.79	40.7	$1.469	$56.47	40.6	$1.391	$52.06	40.8	$1.276	$48.95	41.0	$1.194	$50.02	41.2	$1.214
1948: Average	63.08	40.8	1.546	65.16	40.8	1.597	62.17	40.5	1.535	56.68	40.6	1.396	54.07	40.9	1.322	54.22	40.8	1.329
1948: November	67.36	41.3	1.631	69.38	41.2	1.664	66.05	40.4	1.635	59.10	40.7	1.452	54.78	40.1	1.366	56.39	40.8	1.382
December	66.91	41.3	1.620	69.39	41.4	1.676	65.98	40.6	1.625	59.57	41.0	1.453	56.46	41.3	1.367	57.79	41.4	1.396
1949: January	66.98	41.2	1.625	69.30	41.3	1.678	67.24	41.1	1.636	58.23	40.1	1.452	54.46	39.9	1.365	56.68	40.6	1.396
February	66.54	40.9	1.627	68.67	40.9	1.679	66.54	40.7	1.635	57.72	39.7	1.454	54.62	39.9	1.369	55.59	39.9	1.391
March	63.96	39.7	1.611	65.17	39.4	1.654	63.58	39.2	1.622	57.35	39.5	1.452	55.04	40.0	1.376	55.44	39.8	1.393
April	61.51	38.3	1.606	62.24	38.0	1.638	58.99	36.8	1.603	56.19	38.7	1.452	53.68	39.1	1.373	53.87	38.7	1.392
May	61.74	38.3	1.612	61.96	37.6	1.648	60.34	37.5	1.609	56.67	39.0	1.453	54.06	39.4	1.372	54.51	39.1	1.394
June	62.56	38.5	1.626	62.93	38.0	1.656	61.44	37.9	1.621	57.39	39.2	1.464	55.68	40.7	1.368	53.92	38.6	1.397
July	61.88	38.2	1.620	61.28	37.5	1.634	61.26	38.0	1.612	57.61	39.3	1.466	59.34	42.6	1.393	54.33	38.7	1.404
August	61.65	38.1	1.618	60.37	36.9	1.636	61.26	38.0	1.612	58.13	39.6	1.468	61.13	42.6	1.435	53.37	38.2	1.397
September	62.52	38.4	1.628	60.13	36.4	1.652	63.34	39.0	1.624	59.25	40.2	1.474	59.00	41.2	1.432	55.18	39.3	1.404
October	62.97	38.8	1.623	60.06	36.4	1.650	66.79	41.0	1.629	58.26	40.0	1.457	55.41	39.3	1.410	53.44	38.5	1.388
November	60.85	37.7	1.614	59.26	36.0	1.646	64.50	39.5	1.633	56.80	39.2	1.449	52.86	37.7	1.402	54.41	39.2	1.388

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Fabricated metal products (except ordnance, machinery, and transportation equipment)—Continued

Year and month	Cutlery and edge tools			Hand tools			Heating apparatus (except electric) and plumbers' supplies			Sanitary ware and plumbers' supplies			Oil burners, nonelectric heating and cooking apparatus, not elsewhere classified			Fabricated structural metal products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$48.14	41.9	$1.149	$51.66	41.2	$1.254	$52.85	40.5	$1.305	$55.38	40.6	$1.364	$51.72	40.5	$1.277	$53.87	41.3	$1.297
1948: Average	51.13	41.3	1.238	56.07	40.9	1.371	57.53	40.2	1.431	60.40	40.4	1.495	55.90	40.0	1.396	58.17	41.2	1.412
1948: November	53.04	41.5	1.278	57.51	40.5	1.420	59.36	40.0	1.484	63.98	40.7	1.572	56.79	39.6	1.434	61.38	41.7	1.472
December	52.82	41.3	1.279	58.51	41.0	1.427	59.58	40.2	1.482	64.07	41.1	1.559	56.93	39.7	1.434	61.68	41.9	1.472
1949: January	52.07	40.9	1.273	58.08	40.7	1.427	55.97	38.1	1.469	58.33	37.8	1.543	54.57	38.4	1.421	60.81	41.2	1.476
February	50.72	40.0	1.268	57.31	40.3	1.422	54.94	37.2	1.477	58.47	37.6	1.555	52.76	37.0	1.426	60.85	41.2	1.477
March	50.20	39.5	1.271	56.72	39.8	1.425	55.57	37.6	1.478	59.09	37.9	1.559	53.51	37.5	1.427	60.26	40.8	1.477
April	47.92	38.0	1.261	54.90	38.8	1.415	53.99	36.6	1.475	56.58	36.5	1.550	52.37	36.7	1.427	58.88	40.0	1.472
May	49.99	39.8	1.256	53.95	38.4	1.405	54.61	37.1	1.472	57.55	37.2	1.547	52.76	37.0	1.426	59.90	40.5	1.479
June	49.88	39.4	1.266	52.23	37.2	1.404	54.72	37.3	1.467	55.94	36.3	1.541	54.26	38.0	1.428	59.95	40.4	1.484
July	49.68	39.3	1.264	52.25	37.4	1.397	54.85	37.7	1.455	56.64	36.3	1.531	53.05	37.6	1.411	59.22	40.0	1.483
August	49.87	39.3	1.[illegible]	51.78	36.8	1.407	57.63	39.5	1.459	59.25	36.5	1.539	56.82	40.1	1.417	59.83	40.4	1.481
September	52.26	40.8	1.[illegible]	52.82	37.3	1.416	59.56	40.3	1.478	60.14	38.6	1.558	59.45	41.2	1.443	60.59	40.8	1.485
October	52.51	40.8	1.[illegible]	54.03	38.4	1.407	61.08	41.3	1.479	63.60	40.8	1.561	59.80	41.5	1.441	59.52	40.6	1.466
November	53.16	41.5	1.281	53.48	37.9	1.411	59.51	40.1	1.484	64.36	41.1	1.566	56.30	39.1	1.440	57.81	39.3	1.471

Manufacturing—Continued

Fabricated metal products (except ordnance, machinery, and transportation equipment)—Continued

Year and month	Structural steel and ornamental metalwork			Boiler-shop products			Sheet-metal work			Metal stamping, coating, and engraving			Stamped and pressed metal products			Other fabricated metal products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$53.28	41.4	$1.287	$54.38	41.1	$1.323	$51.74	41.0	$1.262	$52.25	40.5	$1.290	$53.71	40.6	$1.323	$52.25	40.6	$1.287
1948: Average	57.68	41.2	1.400	58.79	41.2	1.427	56.64	40.6	1.395	56.66	40.1	1.413	58.29	40.3	1.449	56.88	40.4	1.408
1948: November	61.43	41.9	1.466	61.72	41.7	1.480	59.24	40.8	1.452	59.09	40.2	1.470	60.81	40.3	1.509	59.56	40.6	1.467
December	61.18	41.8	1.462	62.52	42.1	1.485	59.72	41.3	1.446	59.41	40.5	1.467	60.98	40.6	1.502	59.81	40.8	1.466
1949: January	61.02	41.4	1.474	60.68	41.0	1.480	59.24	40.8	1.452	59.00	40.0	1.475	60.85	40.3	1.510	59.08	40.3	1.466
February	61.19	41.6	1.471	60.80	41.0	1.483	58.27	40.1	1.453	58.21	39.6	1.470	60.24	40.0	1.506	58.84	40.0	1.471
March	60.79	41.1	1.479	60.24	40.7	1.480	57.42	39.9	1.439	57.20	39.1	1.463	59.02	39.4	1.498	57.65	39.3	1.467
April	59.09	40.2	1.470	59.79	40.4	1.480	55.22	37.9	1.457	57.07	38.9	1.467	58.76	39.2	1.499	56.60	38.5	1.470
May	60.75	40.8	1.489	59.68	40.3	1.481	57.93	39.9	1.452	57.11	38.8	1.472	58.69	39.1	1.501	56.44	38.5	1.466
June	61.13	41.0	1.491	59.00	39.6	1.490	57.63	39.8	1.448	59.35	39.7	1.495	61.16	40.0	1.529	58.15	39.0	1.491
July	60.13	40.3	1.492	59.75	40.1	1.490	58.25	39.9	1.460	58.08	38.8	1.497	59.59	38.9	1.532	59.05	39.5	1.495
August	62.32	41.8	1.491	59.10	39.8	1.485	57.70	39.6	1.457	60.06	39.8	1.509	61.88	40.0	1.547	57.92	39.0	1.485
September	62.31	41.9	1.487	60.71	40.5	1.499	58.32	40.0	1.458	60.78	40.2	1.512	63.02	40.5	1.556	59.15	39.7	1.490
October	60.92	41.7	1.461	59.41	39.9	1.489	55.33	38.8	1.426	58.85	39.9	1.475	60.45	39.9	1.515	59.47	40.1	1.483
November	58.28	39.7	1.468	58.37	39.2	1.489	58.23	40.1	1.452	56.25	38.9	1.446	57.55	38.7	1.487	57.02	39.0	1.462

Manufacturing—Continued

Machinery (except electrical)

Year and month	Total: Machinery (except electrical)			Engines and turbines			Agricultural machinery and tractors			Tractors			Agricultural machinery (except tractors)			Construction and mining machinery		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$55.89	41.4	$1.350	$58.40	40.7	$1.435	$55.76	40.7	$1.370	$57.69	40.8	$1.414	$53.43	40.6	$1.316	$54.72	41.8	$1.309
1948: Average	60.52	41.2	1.469	63.50	40.5	1.568	60.59	40.5	1.496	62.05	40.5	1.532	58.62	40.4	1.451	60.33	42.1	1.433
1948: November	62.02	40.8	1.520	64.84	39.9	1.625	61.41	39.9	1.539	63.32	40.2	1.575	59.16	39.6	1.494	62.03	41.8	1.484
December	62.80	41.1	1.528	66.75	40.9	1.632	62.54	40.4	1.548	63.95	40.5	1.579	60.81	40.3	1.509	62.33	42.0	1.484
1949: January	61.72	40.5	1.524	64.16	39.7	1.616	62.11	40.1	1.549	64.15	40.6	1.580	59.72	39.6	1.508	61.10	41.2	1.483
February	61.37	40.4	1.524	64.96	39.9	1.628	62.07	40.2	1.544	63.11	40.2	1.570	60.82	40.2	1.513	60.70	41.1	1.477
March	60.85	39.9	1.525	63.50	39.1	1.624	61.38	39.7	1.546	62.25	39.6	1.572	60.30	39.8	1.515	60.01	40.6	1.478
April	59.55	39.1	1.523	62.38	38.6	1.616	60.18	39.0	1.543	60.82	38.6	1.575	59.61	39.4	1.513	59.70	40.2	1.488
May	59.70	39.2	1.523	63.10	39.0	1.618	60.26	39.0	1.545	60.80	38.8	1.567	59.51	39.2	1.518	58.67	39.8	1.474
June	59.94	39.2	1.529	63.58	39.2	1.622	61.78	39.5	1.564	62.87	39.6	1.580	60.83	39.4	1.544	58.61	39.9	1.469
July	59.67	39.0	1.530	61.72	38.1	1.620	62.09	39.7	1.564	63.68	40.1	1.588	60.13	39.2	1.534	56.97	38.6	1.476
August	59.86	39.1	1.531	62.93	38.8	1.622	61.00	39.1	1.560	62.25	39.3	1.584	59.48	38.9	1.529	57.00	38.8	1.469
September	60.44	39.3	1.538	62.56	38.5	1.625	61.39	39.1	1.570	61.69	38.8	1.590	61.03	39.5	1.545	57.11	38.8	1.472
October	60.17	39.2	1.535	62.15	38.2	1.627	61.23	39.4	1.554	61.39	39.0	1.574	60.70	39.7	1.529	57.08	38.7	1.475
November	59.17	38.5	1.537	61.81	37.9	1.631	57.61	37.0	1.557	58.02	36.7	1.581	57.15	37.4	1.528	55.43	37.5	1.478

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Machinery (except electrical)—Continued

Year and month	Metalworking machinery			Machine tools			Metalworking machinery (except machine tools)			Machine-tool accessories			Special-industry machinery (except metalworking machinery)			General industrial machinery		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$58.49	42.2	$1.386	$57.75	42.4	$1.362	$57.87	41.9	$1.374	$60.52	42.0	$1.441	$55.89	42.7	$1.309	$56.79	41.7	$1.338
1948: Average	62.94	42.1	1.495	61.87	42.2	1.459	62.98	42.1	1.496	65.21	41.8	1.560	60.62	42.3	1.433	59.78	41.2	1.451
1948: November	63.80	41.4	1.541	62.57	41.6	1.504	64.73	41.6	1.556	65.24	40.9	1.595	60.96	41.3	1.476	61.40	40.8	1.505
December	65.21	42.1	1.549	63.40	42.1	1.506	66.48	42.4	1.568	67.05	41.7	1.608	62.81	42.1	1.492	62.28	41.3	1.508
1949: January	63.73	41.3	1.543	61.59	41.2	1.495	64.91	41.5	1.564	66.32	41.4	1.602	61.56	41.4	1.487	61.18	40.6	1.507
February	63.26	41.0	1.543	61.27	40.9	1.498	64.39	41.3	1.559	65.77	40.9	1.608	60.93	41.0	1.486	61.18	40.6	1.507
March	62.93	40.6	1.550	60.68	40.4	1.502	64.12	41.0	1.564	65.89	40.7	1.619	60.83	40.8	1.491	60.17	39.9	1.508
April	61.26	39.7	1.543	59.67	39.7	1.503	62.04	39.9	1.555	63.20	39.4	1.604	60.47	40.5	1.493	59.26	39.4	1.504
May	60.72	39.4	1.541	59.04	39.2	1.506	61.61	39.9	1.544	62.80	39.2	1.602	60.57	40.3	1.503	58.95	39.3	1.500
June	59.79	38.8	1.541	57.90	38.5	1.504	60.68	39.3	1.544	62.52	39.0	1.603	59.98	39.8	1.507	59.26	39.3	1.508
July	59.10	38.3	1.543	57.00	37.9	1.504	59.64	38.7	1.541	62.38	38.7	1.612	60.02	39.8	1.508	58.16	38.8	1.499
August	59.87	38.6	1.551	58.32	38.6	1.511	60.22	39.0	1.544	62.09	38.0	1.634	59.67	39.7	1.503	58.39	38.9	1.501
September	60.37	38.9	1.552	58.06	38.4	1.512	60.26	39.0	1.545	65.27	39.8	1.640	60.30	39.8	1.515	59.00	39.1	1.509
October	60.14	38.7	1.554	57.26	38.1	1.503	61.50	39.5	1.557	64.76	39.2	1.652	59.92	39.5	1.517	59.68	39.5	1.511
November	59.40	38.4	1.547	57.34	38.1	1.505	59.55	38.2	1.559	63.22	39.0	1.621	59.97	39.4	1.522	58.10	38.5	1.509

Manufacturing—Continued

Machinery (except electrical)—Continued

Year and month	Office and store machines and devices			Computing machines and cash registers			Typewriters			Service-industry and household machines			Refrigerators and air-conditioning units			Miscellaneous machinery parts		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$57.59	41.7	$1.381	$62.34	41.7	$1.495	$52.50	41.5	$1.265	$54.50	40.7	$1.339	$53.77	40.1	$1.341	$53.09	40.1	$1.324
1948: Average	61.49	41.1	1.496	66.54	41.2	1.615	55.65	41.1	1.354	58.98	40.4	1.460	58.29	39.9	1.461	57.62	40.1	1.437
1948: November	62.85	40.6	1.548	67.19	40.6	1.655	58.16	40.9	1.422	61.79	40.6	1.522	60.84	40.0	1.521	60.10	40.2	1.495
December	64.29	41.0	1.568	68.71	40.8	1.684	58.92	41.2	1.430	61.12	40.0	1.528	61.36	40.0	1.534	60.82	40.4	1.496
1949: January	63.11	40.2	1.570	68.07	40.4	1.685	56.27	39.6	1.421	60.58	39.8	1.522	59.97	39.3	1.526	59.65	39.9	1.495
February	62.72	40.0	1.568	67.82	40.3	1.683	56.60	39.1	1.422	60.70	39.8	1.525	60.44	39.5	1.530	59.67	39.9	1.495
March	62.92	39.9	1.577	68.07	40.3	1.689	55.78	38.9	1.434	59.73	39.4	1.516	58.71	38.7	1.517	58.15	39.0	1.491
April	61.78	39.0	1.584	67.42	39.9	1.690	53.83	37.1	1.451	58.96	37.8	1.907	58.46	38.7	1.511	58.08	37.7	1.485
May	62.21	39.3	1.583	66.70	39.4	1.693	56.55	39.3	1.439	59.03	39.3	1.502	58.96	38.8	1.517	58.35	37.3	1.484
June	62.73	39.6	1.584	67.28	39.6	1.699	56.76	39.2	1.448	59.66	39.3	1.518	59.02	38.5	1.533	58.87	37.7	1.482
July	62.45	39.3	1.589	67.86	39.5	1.718	56.23	39.1	1.438	62.58	40.9	1.530	62.78	40.4	1.554	55.20	37.2	1.484
August	60.87	38.6	1.577	67.15	39.5	1.700	54.08	37.9	1.427	62.48	40.6	1.539	62.91	40.2	1.565	57.29	38.5	1.488
September	62.69	39.5	1.587	67.93	39.7	1.711	56.74	39.4	1.440	63.71	41.1	1.550	64.14	40.7	1.576	57.37	38.4	1.494
October	62.53	39.5	1.583	67.89	39.7	1.710	56.85	39.7	1.432	61.07	39.5	1.546	59.40	38.2	1.555	57.96	38.9	1.490
November	62.81	39.5	1.590	68.03	39.6	1.718	56.41	39.2	1.439	60.52	39.2	1.544	58.01	37.5	1.547	58.28	39.0	1.497

Manufacturing—Continued

Year and month	Machinery (except electrical)—Con.			Electrical machinery														
	Machine shops (job and repair)			Total: Electrical machinery			Electrical generating, transmission, distribution, and industrial apparatus			Motors, generators, transformers, and industrial controls			Electrical equipment for vehicles			Communication equipment		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$54.46	40.1	$1.358	$51.26	40.3	$1.272	$53.92	40.6	$1.328	$55.01	40.6	$1.355	$51.89	39.7	$1.307	$48.60	39.9	$1.202
1948: Average	58.77	40.2	1.462	55.66	40.1	1.388	58.34	40.4	1.444	59.55	40.4	1.474	56.77	39.7	1.430	52.10	39.8	1.309
1948: November	60.69	39.9	1.521	57.91	40.3	1.437	60.74	40.6	1.496	62.20	40.6	1.532	60.08	40.0	1.502	54.36	40.3	1.349
December	60.60	40.0	1.515	58.10	40.4	1.438	61.66	41.0	1.504	63.41	41.2	1.539	59.94	39.8	1.506	53.84	40.0	1.346
1949: January	60.29	39.9	1.511	57.01	39.7	1.436	60.15	40.1	1.500	61.90	40.3	1.536	59.19	39.3	1.506	52.78	39.3	1.343
February	59.58	39.3	1.516	57.03	39.6	1.440	60.20	40.0	1.505	61.48	40.0	1.537	58.85	39.1	1.505	52.65	39.1	1.346
March	59.58	39.2	1.520	56.50	39.1	1.445	59.49	39.5	1.506	60.91	39.5	1.542	57.26	38.2	1.499	53.06	39.0	1.361
April	59.24	39.0	1.519	55.59	38.5	1.444	58.66	38.9	1.508	60.06	39.0	1.540	57.40	38.5	1.491	53.26	38.4	1.364
May	57.45	38.1	1.508	55.99	38.8	1.443	58.36	38.6	1.512	60.06	38.9	1.544	59.80	39.5	1.514	52.85	38.8	1.362
June	58.72	39.2	1.498	56.16	39.0	1.440	58.55	38.8	1.509	60.21	39.1	1.540	59.69	39.4	1.515	53.35	39.2	1.361
July	58.36	38.8	1.504	56.00	38.7	1.447	59.24	39.0	1.519	61.23	39.4	1.554	60.97	39.9	1.528	51.54	37.9	1.360
August	58.31	39.0	1.495	56.73	39.1	1.451	59.74	39.3	1.520	61.62	39.6	1.556	62.79	40.8	1.539	52.20	38.3	1.363
September	56.44	37.7	1.497	57.88	40.0	1.447	60.22	39.8	1.513	62.16	40.1	1.550	62.90	40.9	1.538	54.44	40.0	1.361
October	56.77	38.1	1.490	58.01	40.4	1.436	59.97	39.9	1.503	61.59	40.1	1.536	59.95	39.7	1.510	55.53	41.1	1.351
November	55.17	37.0	1.491	57.26	39.9	1.435	59.83	39.7	1.507	61.22	39.7	1.542	52.43	35.0	1.498	55.69	41.1	1.355

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Manufacturing—Continued

Year and month	Electrical machinery—Continued: Radios, phonographs, television sets, and equipment			Electrical machinery—Continued: Telephone and telegraph equipment			Electrical machinery—Continued: Electrical appliances, lamps, and miscellaneous products			Transportation equipment: Total: Transportation equipment			Transportation equipment: Automobiles			Transportation equipment: Aircraft and parts		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$44.41	39.2	$1.133	$56.44	41.5	$1.360	$51.68	40.6	$1.273	$56.87	39.3	$1.447	$57.45	39.0	$1.473	$54.98	39.9	$1.378
1948: Average	48.53	39.2	1.238	59.54	40.7	1.463	56.08	40.2	1.395	61.58	39.0	1.579	61.86	38.4	1.611	61.21	41.0	1.493
1948: November	51.17	40.1	1.276	62.19	40.7	1.528	58.08	40.0	1.452	64.27	39.0	1.648	65.22	38.8	1.681	65.04	41.4	1.571
December	51.54	40.2	1.282	60.19	39.7	1.516	58.01	40.2	1.443	66.21	40.1	1.651	66.82	39.7	1.683	64.79	41.4	1.565
1949: January	49.65	39.0	1.273	60.59	39.6	1.530	57.70	39.9	1.446	66.23	39.9	1.660	67.74	39.8	1.702	63.18	40.5	1.560
February	49.23	38.7	1.272	60.74	39.7	1.530	57.59	39.8	1.447	65.79	39.8	1.653	66.91	39.5	1.694	64.52	41.2	1.566
March	49.70	38.8	1.281	61.15	39.3	1.556	58.28	39.0	1.443	63.19	38.6	1.637	62.96	37.7	1.670	63.41	40.7	1.558
April	48.64	38.6	1.260	61.19	39.2	1.561	58.42	38.0	1.432	63.58	38.7	1.643	64.77	38.6	1.678	60.99	39.4	1.548
May	49.41	38.6	1.280	61.04	39.1	1.561	58.58	38.6	1.414	63.03	38.2	1.650	63.22	37.3	1.695	62.98	40.5	1.555
June	50.42	39.3	1.283	61.50	39.4	1.561	58.49	38.7	1.406	65.49	39.5	1.658	66.94	39.4	1.699	62.94	40.5	1.554
July	47.78	37.5	1.274	60.68	38.8	1.564	55.13	39.1	1.410	66.27	39.9	1.661	68.67	40.3	1.704	62.08	39.9	1.556
August	48.60	38.0	1.279	61.54	39.2	1.570	55.77	39.3	1.419	65.90	39.7	1.660	67.78	39.8	1.703	62.07	40.2	1.544
September	52.12	40.5	1.287	61.90	39.1	1.583	56.79	39.8	1.427	67.13	40.1	1.674	69.33	40.4	1.716	63.58	40.6	1.566
October	53.46	41.6	1.285	62.33	39.4	1.582	57.67	40.3	1.431	64.75	39.1	1.656	65.87	39.0	1.689	63.67	40.5	1.572
November	53.40	41.3	1.293	62.92	39.5	1.593	57.49	40.2	1.430	63.08	38.0	1.660	62.79	37.2	1.688	66.04	41.3	1.599

Manufacturing—Continued

Year and month	Transportation equipment—Continued: Aircraft			Transportation equipment—Continued: Aircraft engines and parts			Transportation equipment—Continued: Aircraft propellers and parts			Transportation equipment—Continued: Other aircraft parts and equipment			Ship and boat building and repairing			Shipbuilding and repairing		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$53.99	39.7	$1.360	$56.30	39.9	$1.411	$59.68	41.5	$1.438	$56.50	40.1	$1.409	$57.34	39.6	$1.448	$57.59	39.5	$1.458
1948: Average	60.21	41.1	1.465	63.40	40.9	1.550	62.13	39.7	1.565	63.59	41.0	1.551	60.68	38.7	1.568	61.22	38.7	1.582
1948: November	64.02	41.3	1.550	66.78	41.3	1.617	65.60	40.0	1.640	67.75	42.0	1.613	56.11	34.7	1.617	56.21	34.4	1.634
December	63.84	41.4	1.542	66.49	41.3	1.610	65.77	40.3	1.632	68.02	42.3	1.608	63.34	39.0	1.624	63.96	39.0	1.640
1949: January	61.55	40.1	1.535	67.13	41.8	1.606	66.34	40.7	1.630	65.73	40.7	1.615	63.30	39.0	1.623	63.72	38.9	1.638
February	63.82	41.2	1.549	65.96	41.2	1.601	65.97	40.7	1.621	66.36	41.4	1.603	61.99	38.5	1.610	62.36	38.4	1.624
March	63.07	40.9	1.542	64.00	40.3	1.588	65.81	40.8	1.613	64.04	40.3	1.589	62.98	38.9	1.619	63.61	39.0	1.631
April	60.97	39.8	1.532	64.04	40.2	1.593	64.36	40.1	1.605	64.50	35.0	1.557	62.50	38.2	1.636	62.90	38.1	1.651
May	62.26	40.4	1.541	64.08	40.3	1.590	68.14	41.6	1.638	63.53	40.7	1.561	61.61	38.1	1.617	61.98	38.0	1.631
June	61.90	40.3	1.536	65.52	41.0	1.598	67.89	41.5	1.636	63.52	40.2	1.580	62.52	38.4	1.626	63.18	38.2	1.651
July	60.78	39.7	1.531	63.80	39.7	1.607	69.88	42.2	1.656	65.37	40.3	1.622	61.04	38.4	1.613	62.16	38.3	1.623
August	61.46	40.3	1.525	61.66	39.4	1.565	66.42	40.9	1.624	65.98	40.6	1.625	60.05	37.3	1.610	60.14	37.1	1.621
September	62.26	40.4	1.541	65.72	41.0	1.603	68.60	41.4	1.657	66.83	40.8	1.638	61.00	37.7	1.618	61.24	37.5	1.633
October	62.42	40.3	1.549	64.64	40.2	1.608	65.73	40.5	1.623	69.17	42.1	1.643	59.28	36.5	1.624	59.68	36.3	1.644
November	65.18	41.2	1.582	68.62	42.1	1.630	64.27	39.6	1.623	67.86	41.2	1.647	57.03	34.9	1.634	57.13	34.5	1.656

Manufacturing—Continued

Year and month	Transportation equipment—Continued: Railroad equipment			Transportation equipment—Continued: Locomotives and parts			Transportation equipment—Continued: Railroad and street cars			Transportation equipment—Continued: Other transportation equipment			Instruments and related products: Total: Instruments and related products			Instruments and related products: Ophthalmic goods		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$57.06	40.5	$1.409	$58.93	39.8	$1.480	$55.86	40.8	$1.369	$53.53	40.8	$1.312	$49.17	40.3	$1.220	$43.39	40.9	$1.061
1948: Average	62.24	40.0	1.556	63.80	39.6	1.611	60.82	40.2	1.513	58.14	40.8	1.425	53.48	40.1	1.333	45.54	39.7	1.147
1948: November	64.51	39.7	1.625	65.77	39.1	1.682	63.68	40.1	1.588	67.11	44.3	1.515	54.90	39.9	1.376	46.72	39.9	1.171
December	66.89	41.5	1.660	71.13	40.6	1.752	67.32	42.1	1.599	56.08	39.3	1.427	55.24	40.0	1.381	47.16	40.1	1.176
1949: January	66.50	40.8	1.630	67.22	39.8	1.689	66.11	41.5	1.593	54.44	38.1	1.429	55.36	40.0	1.384	47.36	40.0	1.184
February	65.53	40.7	1.610	64.10	39.3	1.631	66.39	41.6	1.596	54.57	38.0	1.436	55.28	39.8	1.389	46.85	39.6	1.183
March	64.76	39.9	1.623	66.35	39.8	1.667	63.40	39.9	1.589	56.07	39.4	1.423	54.18	39.7	1.365	47.04	39.9	1.179
April	62.42	38.6	1.617	66.20	39.5	1.676	59.54	37.9	1.571	55.50	39.0	1.423	54.51	39.3	1.387	46.61	39.3	1.186
May	63.30	39.2	1.617	66.21	39.6	1.672	61.38	38.9	1.578	56.83	39.6	1.435	54.83	39.5	1.388	47.24	39.7	1.190
June	62.71	39.0	1.608	64.48	39.2	1.645	61.34	38.8	1.581	56.87	39.3	1.447	54.61	39.2	1.393	46.29	38.9	1.190
July	60.32	37.7	1.600	63.65	39.0	1.632	58.23	36.9	1.578	54.94	39.3	1.398	54.37	39.0	1.394	46.57	39.1	1.191
August	64.64	40.0	1.616	75.57	44.4	1.702	59.93	38.1	1.573	56.46	40.4	1.447	54.25	39.0	1.391	45.47	38.6	1.178
September	61.84	38.1	1.623	64.44	38.7	1.665	59.87	37.7	1.588	62.85	41.9	1.500	55.26	39.5	1.399	47.64	39.9	1.194
October	62.52	38.5	1.624	65.78	39.7	1.657	60.22	37.9	1.589	63.94	42.6	1.501	56.08	39.8	1.409	47.64	40.0	1.191
November	63.07	38.2	1.651	67.07	39.5	1.698	59.75	37.3	1.602	60.78	40.6	1.497	56.64	40.0	1.416	47.76	40.1	1.191

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Year and month	Manufacturing—Continued																	
	Instruments and related products—Continued									Miscellaneous manufacturing industries								
	Photographic apparatus			Watches and clocks			Professional and scientific instruments			Total: Miscellaneous manufacturing industries			Jewelry, silverware, and plated ware			Jewelry and findings		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$54.35	40.5	$1.342	$44.53	39.9	$1.116	$49.80	40.1	$1.242	$46.63	40.8	$1.143	$54.41	43.7	$1.245	$48.40	41.3	$1.172
1948: Average	58.64	40.5	1.448	46.84	40.1	1.218	54.78	40.1	1.366	50.06	40.9	1.224	57.25	43.6	1.313	50.47	41.2	1.225
1948: November	60.15	40.1	1.500	49.93	39.5	1.264	56.28	40.0	1.407	51.33	41.0	1.252	59.45	44.2	1.345	52.71	42.0	1.255
December	60.55	40.5	1.495	50.29	39.6	1.270	56.28	39.8	1.414	51.78	41.0	1.263	58.99	43.6	1.353	53.34	41.8	1.276
1949: January	60.28	40.4	1.492	49.30	39.0	1.264	57.00	40.2	1.418	50.77	40.2	1.263	58.34	42.3	1.379	50.84	41.0	1.240
February	60.30	39.8	1.515	49.33	38.9	1.268	56.72	40.0	1.418	50.86	40.3	1.262	58.25	42.0	1.340	50.96	40.6	1.255
March	60.30	39.8	1.515	49.84	39.1	1.267	56.60	39.8	1.422	50.17	40.2	1.248	54.34	41.2	1.319	51.92	41.5	1.251
April	58.80	39.2	1.500	49.34	39.1	1.262	56.03	39.4	1.422	48.96	39.0	1.255	53.76	40.7	1.321	50.17	40.1	1.251
May	58.78	39.4	1.492	48.91	38.6	1.267	56.61	39.7	1.426	48.83	39.0	1.252	51.83	39.6	1.309	49.76	39.9	1.247
June	58.24	38.8	1.501	48.91	38.6	1.267	56.85	39.7	1.432	49.72	39.4	1.262	51.10	39.8	1.284	49.92	40.1	1.245
July	58.84	39.2	1.501	48.15	38.0	1.267	56.13	39.2	1.432	48.75	39.0	1.250	50.00	38.2	1.309	48.56	37.8	1.289
August	58.73	39.1	1.502	48.43	38.5	1.258	56.43	39.3	1.436	48.51	38.9	1.247	50.13	38.5	1.302	48.11	38.8	1.240
September	59.72	39.6	1.508	49.75	39.3	1.266	56.97	39.4	1.446	50.57	40.2	1.258	54.79	41.6	1.317	51.09	41.1	1.243
October	60.26	39.8	1.514	50.69	39.6	1.280	58.13	39.9	1.457	51.53	40.7	1.266	60.33	44.2	1.365	54.31	42.8	1.269
November	62.83	40.8	1.540	51.06	39.8	1.283	58.07	39.8	1.459	51.57	40.8	1.264	61.28	44.5	1.377	54.70	42.8	1.278

Year and month	Manufacturing—Continued									Transportation and public utilities					
	Miscellaneous manufacturing industries—Continued														
	Silverware and plated ware			Toys and sporting goods			Costume jewelry, buttons, notions			Other miscellaneous manufacturing industries			Class I railroads [2]			Local railways and bus lines [2]		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$59.23	45.6	$1.299	$44.45	40.2	$1.106	$42.03	39.8	$1.056	$46.89	40.7	$1.152	$54.22	46.3	$1.171	$57.14	46.8	$1.221
1948: Average	62.38	45.4	1.374	47.24	40.1	1.178	45.36	40.0	1.134	50.39	40.7	1.238	59.27	46.2	1.283	61.73	46.1	1.339
1948: November	64.62	45.8	1.411	48.76	40.2	1.213	45.50	39.6	1.149	51.55	40.8	1.266	60.42	45.7	1.322	63.25	45.6	1.387
December	63.41	45.0	1.409	48.00	39.6	1.212	45.43	39.3	1.156	52.74	41.2	1.280	60.19	45.6	1.320	63.85	45.9	1.391
1949: January	60.89	43.4	1.403	47.91	39.4	1.216	45.51	39.3	1.158	51.62	40.2	1.284	60.21	45.2	1.333	63.82	45.1	1.415
February	60.70	43.2	1.405	47.51	39.3	1.209	46.36	39.9	1.162	51.68	40.2	1.283	61.64	45.9	1.343	64.18	45.1	1.423
March	56.42	41.0	1.376	47.62	39.1	1.215	46.06	40.4	1.140	51.02	40.3	1.266	60.00	45.5	1.318	64.18	45.2	1.420
April	56.89	41.1	1.377	45.49	37.5	1.213	45.75	39.2	1.167	49.57	39.0	1.271	62.51	46.0	1.359	64.64	45.2	1.430
May	52.99	39.4	1.345	45.96	38.3	1.200	44.54	38.6	1.154	50.06	39.2	1.277	60.69	44.4	1.367	64.48	44.9	1.436
June	52.02	39.5	1.317	46.25	38.8	1.192	45.93	39.4	1.191	51.07	39.5	1.293	57.27	42.3	1.354	66.01	46.0	1.435
July	50.94	38.5	1.323	44.76	37.8	1.184	46.49	39.4	1.180	50.24	39.4	1.275	60.37	44.1	1.369	65.21	45.1	1.446
August	51.88	38.2	1.358	45.67	38.8	1.177	43.88	37.5	1.170	50.11	39.3	1.275	62.64	46.4	1.354	64.46	44.7	1.442
September	57.53	41.6	1.383	47.60	39.7	1.199	45.90	39.2	1.171	51.75	40.3	1.284	60.98	39.6	1.540	64.55	44.3	1.457
October	65.85	45.6	1.444	48.44	40.3	1.202	47.48	39.4	1.205	51.59	40.4	1.277	58.98	38.3	1.537	64.65	44.4	1.456
November	66.79	46.0	1.452	49.12	40.8	1.204	46.02	39.2	1.174	51.59	40.4	1.277	.....	.....	.....	63.93	44.0	1.453

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Continued

Transportation and public utilities—Continued

Year and month	Communication: Telephone [9] Avg. wkly. earnings	Telephone [9] Avg. wkly. hours	Telephone [9] Avg. hrly. earnings	Communication: Switchboard operating employees [10] Avg. wkly. earnings	Switchboard operating employees [10] Avg. wkly. hours	Switchboard operating employees [10] Avg. hrly. earnings	Communication: Line construction, installation, and maintenance employees [11] Avg. wkly. earnings	Line construction, installation, and maintenance employees [11] Avg. wkly. hours	Line construction, installation, and maintenance employees [11] Avg. hrly. earnings	Communication: Telegraph [12] Avg. wkly. earnings	Telegraph [12] Avg. wkly. hours	Telegraph [12] Avg. hrly. earnings	Other public utilities: Gas and electric utilities Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1947: Average	$44.77	37.4	$1.197							$53.56	44.6	$1.201	$56.69	41.9	$1.353
1948: Average	48.92	39.2	1.248							60.26	44.7	1.348	60.74	41.8	1.453
1948: November	51.42	39.4	1.305							61.41	44.4	1.383	62.38	41.7	1.496
December	49.85	38.7	1.288							61.17	44.1	1.387	62.41	41.8	1.493
1949: January	49.84	38.4	1.298							61.58	44.3	1.390	63.08	41.8	1.509
February	50.84	38.6	1.317							61.94	44.5	1.392	62.60	41.4	1.512
March	50.82	38.3	1.327							62.31	44.7	1.394	62.54	41.5	1.507
April	50.58	38.2	1.324							63.37	45.3	1.399	62.82	41.3	1.521
May	51.84	38.6	1.343							63.69	45.2	1.409	63.40	41.3	1.535
June	51.49	38.4	1.341	$44.30	36.7	$1.207	$68.52	41.6	$1.647	62.96	45.0	1.399	63.64	41.3	1.541
July	51.90	38.5	1.348	44.81	37.0	1.211	69.06	41.6	1.660	63.97	45.4	1.409	64.02	41.3	1.550
August	51.57	38.4	1.343	44.23	36.8	1.202	69.22	41.6	1.664	63.64	45.1	1.411	63.92	41.4	1.544
September	52.61	38.6	1.363	45.37	37.1	1.223	70.10	41.7	1.681	62.83	44.5	1.412	64.75	41.4	1.564
October	53.33	38.7	1.378	46.35	37.2	1.246	70.35	41.6	1.691	62.97	44.5	1.415	65.80	41.7	1.578
November	54.44	38.8	1.403							62.01	43.7	1.419	65.44	41.6	1.573

Trade

Year and month	Wholesale trade Avg. wkly. earnings	Wholesale trade Avg. wkly. hours	Wholesale trade Avg. hrly. earnings	Retail trade: Retail trade (except eating and drinking places) Avg. wkly. earnings	Retail trade (except eating and drinking places) Avg. wkly. hours	Retail trade (except eating and drinking places) Avg. hrly. earnings	Retail trade: General merchandise stores Avg. wkly. earnings	General merchandise stores Avg. wkly. hours	General merchandise stores Avg. hrly. earnings	Department stores and general mail-order houses Avg. wkly. earnings	Department stores and general mail-order houses Avg. wkly. hours	Department stores and general mail-order houses Avg. hrly. earnings	Food and liquor stores Avg. wkly. earnings	Food and liquor stores Avg. wkly. hours	Food and liquor stores Avg. hrly. earnings
1947: Average	$51.99	41.0	$1.268	$40.66	40.3	$1.009	$30.96	36.3	$0.853	$34.83	37.6	$0.927	$43.51	40.7	$1.069
1948: Average	55.38	40.9	1.359	43.85	40.3	1.088	33.31	36.6	.910	37.36	37.7	.991	47.15	40.3	1.170
1948: November	56.48	40.9	1.381	43.99	39.7	1.108	32.86	35.8	.918	37.17	37.1	1.002	47.84	39.8	1.202
December	56.87	41.0	1.387	44.36	40.4	1.098	34.46	37.5	.919	40.06	39.2	1.022	48.48	40.2	1.206
1949: January	57.24	40.8	1.403	45.51	40.2	1.132	34.42	36.5	.943	38.79	37.7	1.029	49.07	39.8	1.233
February	56.82	40.5	1.403	45.14	40.2	1.123	34.01	36.3	.937	37.96	37.4	1.015	49.12	40.0	1.228
March	56.88	40.6	1.401	44.95	40.1	1.121	33.68	36.1	.933	37.86	37.3	1.015	48.87	39.7	1.231
April	57.12	40.6	1.407	45.31	40.2	1.127	34.26	36.6	.936	38.80	37.6	1.032	49.08	40.0	1.227
May	57.83	40.7	1.421	45.98	40.3	1.141	34.85	36.3	.960	39.33	37.6	1.046	48.99	39.7	1.234
June	57.49	40.6	1.416	46.45	40.5	1.147	35.62	36.8	.968	39.95	37.8	1.057	50.26	40.4	1.244
July	58.18	40.8	1.426	46.95	40.9	1.148	35.86	37.2	.964	39.79	38.0	1.047	51.13	41.1	1.244
August	57.10	40.7	1.403	46.87	40.9	1.146	35.75	37.2	.961	39.58	37.8	1.047	51.00	41.0	1.244
September	57.35	40.7	1.409	46.58	40.5	1.150	35.17	36.6	.961	39.48	37.6	1.050	50.57	40.2	1.258
October	58.26	40.8	1.428	46.14	40.4	1.142	34.74	36.3	.957	39.05	37.3	1.047	50.33	40.3	1.249
November	57.81	40.6	1.424	45.71	40.1	1.140	34.46	36.2	.952	38.94	37.3	1.044	50.49	40.1	1.259

Trade—Continued

Year and month	Retail trade—Continued: Automotive and accessories dealers Avg. wkly. earnings	Automotive and accessories dealers Avg. wkly. hours	Automotive and accessories dealers Avg. hrly. earnings	Apparel and accessories stores Avg. wkly. earnings	Apparel and accessories stores Avg. wkly. hours	Apparel and accessories stores Avg. hrly. earnings	Other retail trade: Furniture and appliance stores Avg. wkly. earnings	Furniture and appliance stores Avg. wkly. hours	Furniture and appliance stores Avg. hrly. earnings	Lumber and hardware supply stores Avg. wkly. earnings	Lumber and hardware supply stores Avg. wkly. hours	Lumber and hardware supply stores Avg. hrly. earnings
1947: Average	$51.80	45.4	$1.141	$38.08	36.9	$1.032	$48.99	42.9	$1.142	$45.20	43.5	$1.039
1948: Average	56.07	45.4	1.235	39.60	36.5	1.085	51.15	42.7	1.198	49.37	43.5	1.135
1948: November	57.22	45.2	1.266	39.71	35.9	1.106	52.39	42.7	1.227	50.14	43.0	1.166
December	57.07	45.4	1.257	40.66	37.0	1.099	53.93	43.6	1.237	50.53	43.6	1.159
1949: January	57.25	45.4	1.261	41.11	36.8	1.117	52.74	42.6	1.238	50.25	43.1	1.166
February	57.15	45.5	1.256	39.79	36.4	1.093	52.36	43.2	1.212	50.87	43.0	1.183
March	58.18	45.7	1.273	39.64	36.3	1.092	52.02	43.1	1.207	51.20	43.5	1.177
April	59.50	45.7	1.302	40.88	36.7	1.114	52.82	43.4	1.217	51.35	43.3	1.186
May	60.00	45.8	1.310	40.92	36.8	1.112	53.93	43.5	1.225	52.48	44.1	1.190
June	59.70	45.5	1.312	40.85	36.7	1.113	53.16	43.5	1.222	51.96	43.7	1.189
July	59.83	45.6	1.312	40.37	36.5	1.106	52.78	43.3	1.219	52.34	43.8	1.195
August	59.55	45.6	1.306	40.52	36.8	1.101	52.82	43.4	1.217	52.40	44.0	1.191
September	59.51	45.5	1.308	41.66	37.1	1.123	53.37	43.6	1.224	52.18	43.7	1.194
October	59.44	45.9	1.295	40.08	36.6	1.095	53.21	43.4	1.226	53.14	44.1	1.205
November	58.92	45.6	1.292	40.00	36.4	1.099	53.96	43.8	1.232	52.13	43.3	1.204

See footnotes at end of table.

TABLE C–1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees [1]—Con.

Year and month	Finance [12]			Service									
	Banks and trust companies	Security dealers and exchanges	Insurance carrier	Hotels, year-round [14]			Laundries			Cleaning and dyeing plants			Motion picture production and distribution [15]
	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings
1947: Average	$39.46	$63.08	$52.58	$29.36	45.2	$0.650	$32.71	42.6	$0.767	$38.30	41.9	$0.914	$99.13
1948: Average	41.51	66.83	54.93	31.41	44.3	.709	34.23	41.9	.817	39.80	41.1	.963	92.27
1948: November	42.19	65.62	54.82	32.35	44.2	.732	34.74	41.7	.833	39.76	40.7	.977	89.79
December	42.04	68.26	55.46	32.35	44.2	.732	34.99	42.0	.833	40.62	41.2	.986	92.96
1949: January	43.92	68.41	57.84	32.41	44.1	.735	35.49	42.1	.843	40.37	40.9	.987	88.22
February	43.55	67.80	56.88	32.47	44.0	.738	34.90	41.5	.841	39.32	40.0	.983	89.75
March	43.24	66.46	56.67	32.53	44.3	.731	35.07	41.8	.845	39.93	40.8	.986	91.59
April	43.49	67.48	56.48	32.35	44.2	.732	35.24	41.8	.843	42.15	42.4	.994	90.24
May	44.05	67.82	57.26	32.99	44.7	.738	36.04	42.4	.850	43.17	42.7	1.011	90.98
June	43.10	66.12	56.59	32.85	44.1	.745	35.32	41.6	.849	42.17	42.3	.997	94.73
July	43.80	63.70	56.70	32.90	44.1	.746	35.03	41.5	.844	40.43	41.0	.986	93.52
August	43.10	63.30	55.54	32.93	44.2	.745	34.27	40.9	.840	38.63	39.5	.978	92.65
September	43.62	67.29	55.33	32.90	44.1	.746	34.69	41.2	.842	41.28	41.7	.990	92.26
October	43.96	71.29	56.04	32.87	44.3	.742	34.69	41.2	.842	40.38	41.2	.980	94.45
November	43.78	73.24	55.87	33.22	44.0	.755	34.40	40.9	.841	40.25	40.9	.984	91.74

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during, or received pay for, the pay period ending nearest the 15th of the month. For mining, manufacturing, laundries, and cleaning and dyeing plants industries, the data relate to production and related workers only. For the remaining industries, unless otherwise noted, the data relate to nonsupervisory employees and working supervisors. All series, beginning with January 1947, are available upon request to the Bureau of Labor Statistics. Such requests should specify the series desired. Data for the two current months are subject to revision without notation; revised figures for earlier months will be identified by an asterisk for the first month's publication of such data.

[2] Data relate to all construction workers, both on-site and off-site, engaged in actual construction work including pre-assembly and precutting operations. Both privately and publicly financed construction are included. Data are based on comparable but not necessarily identical samples.

[3] Includes ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

[4] Includes food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; and leather and leather products.

[5] Data by region, North and South, from January 1949, are available upon request.

[6] Data by region, South and West, from January 1949, are available upon request.

[7] These averages are based on reports summarized in the M–300 report prepared by the Interstate Commerce Commission, and relate to all hourly rated employees who received pay during the month. Most executive, professional, and supervisory personnel are excluded. Switching and terminal companies are excluded. The annual average data include retroactive pay when such payments are made. Monthly data do not include retroactive payments. Beginning with September 1, 1949, data reflect the following changes for nonoperative employees (about two-thirds of the total): (1) scheduled weekly hours were reduced from 48 to 40; (2) hourly rates were adjusted to maintain the former weekly earnings for 48 hours; (3) an additional wage increase of $0.07 an hour was granted.

[8] Data include privately and municipally operated local railways and bus lines.

[9] Through May 1949 the averages relate mainly to the hours and earnings of employees subject to the Fair Labor Standards Act. Beginning with June 1949 the averages relate to the hours and earnings of nonsupervisory employees. Data for June comparable with the earlier series are $51.47, 38.5 hours, and $1.337.

[10] Data include employees such as switchboard operators, service assistants, operating-room instructors, and pay-station attendants.

[11] Data include employees such as central office craftsmen; installation and exchange repair craftsmen; line, cable, and conduit craftsmen; and laborers.

[12] Data relate mainly to hand-line employees, excluding employees compensated on a commission basis, general and divisional headquarters personnel, trainees in school, and messengers.

[13] Data on average weekly hours and average hourly earnings are not available.

[14] Money payments only; additional value of board, room, uniforms, and tips, not included.

NOTE: Explanatory notes outlining briefly the concepts, methodology, size of the reporting sample, and sources used in preparing the data presented in tables C–1 through C–4, are contained in the Bureau's monthly mimeographed release, "Hours and Earnings—Industry Report," which is available upon request.

TABLE C–2: Gross Average Weekly Earnings of Production Workers in Selected Industries, in Current and 1939 Dollars [1]

Year and month	Manufacturing		Bituminous-coal mining		Gas and electric utilities [2]		Year and month	Manufacturing		Bituminous-coal mining [3]		Gas and electric utilities [2]	
	Current dollars	1939 dollars	Current dollars	1939 dollars	Current dollars	1939 dollars		Current dollars	1939 dollars	Current dollars	1939 dollars	Current dollars	1939 dollars
1947: Average	$49.97	$31.20	$66.59	$41.58	$56.69	$35.40	1949: April	$53.80	$31.51	$72.33	$42.37	$62.82	$36.80
1948: Average	54.14	31.43	72.12	41.87	60.74	35.27	May	54.08	31.77	72.98	42.87	63.40	37.25
1948: November	55.60	32.09	72.73	41.98	62.38	36.01	June	54.51	31.98	59.90	35.11	63.64	37.30
December	56.14	32.56	76.28	44.24	62.41	36.19	July	54.63	32.23	47.94	28.28	64.02	37.77
1949: January	55.50	32.28	76.32	44.39	63.08	36.69	August	54.70	32.21	49.51	29.15	63.92	37.64
February	55.20	32.47	73.56	43.27	62.60	36.82	September	55.72	32.66	52.46	30.75	64.75	37.95
March	54.74	32.10	70.84	41.37	62.54	36.68	October [3]	55.26	32.60	63.06	37.20	65.80	38.82
							November [3]	54.53	32.15	70.67	41.66	65.44	38.58

[1] These series indicate changes in the level of weekly earnings prior to and after adjustment for changes in purchasing power as determined from the Bureau's Consumers' Price Index, the year 1939 having been selected for the base period. Estimates of World War II and postwar understatement by the Consumers' Price Index were not included. See the Monthly Labor Review, March 1947, p. 498. See Note, table C–1. Comparable data from January 1947 are available upon request to the Bureau of Labor Statistics.

[2] Data relate to all nonsupervisory employees and working supervisors.

[3] Preliminary.

TABLE C–3: Gross and Net Spendable Average Weekly Earnings of Production Workers in Manufacturing Industries, in Current and 1939 Dollars [1]

Period	Gross average weekly earnings		Net spendable average weekly earnings				Period	Gross average weekly earnings		Net spendable average weekly earnings			
			Worker with no dependents		Worker with 3 dependents					Worker with no dependents		Worker with 3 dependents	
	Amount	Index (1939=100)	Current dollars	1939 dollars	Current dollars	1939 dollars		Amount	Index (1939=100)	Current dollars	1939 dollars	Current dollars	1939 dollars
1941: January	$26.64	111.7	$25.41	$25.06	$26.37	$26.00	1948: November	$55.60	233.0	$48.66	$28.09	$54.40	$31.40
1945: January	47.50	199.1	39.40	30.81	45.17	35.33	December	56.14	235.3	49.10	28.47	54.65	31.81
July	45.45	190.5	37.80	29.04	43.57	33.47							
1946: June	43.31	181.5	37.30	27.81	42.78	31.90	1949: January	55.50	232.6	48.57	28.25	54.31	31.59
							February	55.20	231.3	48.32	28.42	54.06	31.80
1939: Average	23.86	100.0	23.58	23.58	23.62	23.62	March	54.74	229.4	47.93	28.11	53.67	31.47
1940: Average	25.20	105.6	24.69	24.49	24.95	24.75	April	53.80	225.5	47.14	27.61	52.88	30.97
1941: Average	29.58	124.0	28.05	26.51	29.28	27.67	May	54.08	226.7	47.38	27.83	53.12	31.21
1942: Average	36.65	153.6	31.77	27.11	36.28	30.96	June	54.51	228.5	47.74	27.98	53.48	31.34
1943: Average	43.14	180.8	36.01	28.97	41.39	33.30	July	54.63	229.0	47.84	28.22	53.58	31.61
1944: Average	46.08	193.1	38.29	30.32	44.08	34.89	August	54.70	229.3	47.90	28.21	53.64	31.59
1945: Average	44.39	186.0	36.97	28.61	42.74	33.08	September	55.72	233.5	48.75	28.57	54.50	31.94
1946: Average	43.74	183.3	37.65	26.87	43.13	30.78	October [2]	55.26	231.6	48.37	28.53	54.11	31.92
1947: Average	49.97	209.4	42.76	26.70	48.24	30.12	November [2]	54.53	228.5	47.76	28.16	53.50	31.54
1948: Average	54.14	226.9	47.43	27.54	53.17	30.87							

[1] Net spendable average weekly earnings are obtained by deducting from gross average weekly earnings, social security and income taxes for which the specified type of worker is liable. The amount of income tax liability depends, of course, on the number of dependents supported by the worker as well as on the level of his gross income. Net spendable earnings have, therefore, been computed for 2 types of income-receivers: (1) A worker with no dependents: (2) A worker with 3 dependents.

The computation of net spendable earnings for both the factory worker with no dependents and the factory worker with 3 dependents are based upon the gross average weekly earnings for all production workers in manufacturing industries without direct regard to marital status and family composition. The primary value of the spendable series is that of measuring relative changes in disposable earnings for 2 types of income-receivers. That series does not, therefore, reflect actual differences in levels of earnings for workers of varying age, occupation, skill, family composition, etc. See Note, table C–1. Comparable data from January 1947 are available upon request to the Bureau of Labor Statistics.

[2] Preliminary.

TABLE C–4: Average Hourly Earnings, Gross and Exclusive of Overtime, of Production Workers in Manufacturing Industries [1]

Period	Manufacturing			Durable goods		Nondurable goods		Period	Manufacturing			Durable goods		Nondurable goods	
	Gross amount	Excluding overtime		Gross	Excluding overtime	Gross	Excluding overtime		Gross amount	Excluding overtime		Gross	Excluding overtime	Gross	Excluding overtime
		Amount	Index (1939=100)							Amount	Index (1939=100)				
1947: Average	$1.237	$1.198	189.3	$1.292	$1.250	$1.171	$1.133	1949: April	$1.401	1.373	216.9	1.467	1.437	1.321	1.294
1948: Average	1.350	1.310	207.0	1.410	1.366	1.278	1.241	May	1.401	1.371	216.6	1.467	1.437	1.323	1.294
								June	1.405	1.373	216.9	1.475	1.443	1.324	1.293
1948: November	1.397	1.357	214.4	1.463	1.419	1.317	1.281	July	1.408	1.376	217.4	1.477	1.447	1.332	1.298
December	1.400	1.358	214.5	1.466	1.418	1.319	1.283	August	1.399	1.366	215.8	1.473	1.440	1.319	1.286
								September	1.407	1.369	216.3	1.482	1.444	1.328	1.290
1949: January	1.405	1.367	216.0	1.467	1.427	$1.327	1.294	October [2]	1.392	1.354	213.9	1.458	1.419	1.327	1.289
February	1.401	1.366	215.8	1.466	1.428	1.323	1.291	November [2]	1.391	1.357	214.4	1.454	1.422	1.327	1.291
March	1.400	1.368	216.1	1.464	1.430	1.323	1.294								

[1] Overtime is defined as work in excess of 40 hours per week and paid for at time and one-half. The computation of average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on holidays. See Note, table C–1. Comparable data from January 1947 are available upon request to the Bureau of Labor Statistics.

[2] Preliminary.

TABLE C–5: Hours and Gross Earnings of Production Workers in Manufacturing Industries for Selected States and Areas [1]

Year and month	Alabama	Arizona					Arkansas			California					
	State	State			Maricopa County			State			State			Los Angeles		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: December	------	$56.88	41.1	*$1.383	------	------	------	$39.74	42.2	$0.941	$61.35	38.7	$1.586	$61.17	39.0	$1.566
1949: January	44.10	55.32	39.8	1.390	------	------	------	------	------	------	61.45	38.5	1.596	61.03	38.7	1.577
February	43.60	56.12	40.4	1.389	------	------	------	------	------	------	61.61	38.7	1.592	61.07	38.9	1.570
March	43.69	56.73	40.9	1.387	------	------	------	------	------	------	61.09	38.4	1.591	60.64	38.6	1.571
April	42.18	58.16	41.6	1.398	------	------	------	------	------	------	61.02	38.4	1.589	60.02	38.3	1.567
May	41.84	*56.14	*40.3	*1.394	------	------	------	------	------	------	61.80	38.7	1.597	60.72	38.7	1.569
June	42.29	57.83	40.6	1.423	------	------	------	------	------	------	61.91	38.6	1.604	60.91	38.5	1.582
July	43.08	57.49	40.6	1.416	$57.49	40.6	$1.416	38.22	40.8	.937	61.84	38.7	1.598	61.69	38.8	1.590
August	42.88	57.72	41.2	1.400	55.00	39.7	1.384	38.40	41.5	.926	61.58	39.1	1.575	61.58	38.9	1.583
September	*44.43	58.49	41.2	1.420	56.63	39.6	1.430	38.27	41.2	.929	62.73	39.5	1.588	62.25	39.1	1.592
October	43.15	*58.61	*42.8	*1.368	56.63	40.2	1.419	*40.03	*42.6	*.940	63.12	39.6	1.594	62.80	39.4	1.594
November	43.09	57.75	42.6	1.355	56.26	40.1	1.403	39.86	42.0	.950	61.12	38.2	1.600	61.53	38.7	1.590
December	45.38	56.51	42.6	1.328	54.86	39.3	1.396	39.47	41.5	.950	------	------	------	------	------	------

Year and month	California—Continued	Connecticut	Delaware				Florida			Illinois		
	San Francisco	State	State			Wilmington	State			State		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: December	$63.99	$57.04	41.1	$1.39	$51.08	40.2	$1.269	$61.07	41.6	$1.468	$42.16	44.1	$0.956	$60.60	41.0	$1.48
1949: January	64.41	55.96	40.4	1.38	51.38	40.5	1.269	61.49	42.2	1.458	42.48	44.2	.961	59.81	40.4	1.48
February	64.00	54.67	39.7	1.38	50.95	39.6	1.285	60.76	41.3	1.472	*41.72	43.5	.960	59.44	40.1	1.48
March	63.03	53.02	38.6	1.37	49.68	39.3	1.264	58.64	40.5	1.448	41.44	43.3	.957	58.65	39.7	1.48
April	63.27	50.02	36.4	1.38	47.96	38.2	1.257	56.42	39.2	1.444	40.61	42.3	.960	57.83	39.0	1.48
May	63.71	51.74	37.9	1.36	47.43	37.7	1.258	56.80	38.9	1.464	41.55	43.1	.964	58.10	39.2	1.48
June	63.09	51.72	37.8	1.37	48.55	38.5	1.261	*57.93	39.6	1.461	41.38	41.8	.990	58.58	39.4	1.48
July	62.88	52.21	38.2	1.37	48.50	38.4	1.264	*59.32	39.8	1.488	41.03	40.3	1.018	58.65	39.4	1.49
August	62.91	52.32	38.2	1.37	47.63	41.5	1.147	*59.70	40.5	1.471	41.16	41.2	.999	58.80	39.9	1.47
September	64.88	54.77	39.9	1.36	48.53	40.7	1.193	*59.28	39.6	*1.501	41.59	41.3	1.007	59.53	39.8	1.49
October	64.48	55.15	40.3	1.37	*45.88	39.0	*1.177	*54.96	*37.8	*1.456	41.93	42.4	.989	59.16	39.9	1.48
November	61.68	55.78	40.4	1.38	48.10	38.3	1.255	57.45	39.3	1.467	43.40	43.4	1.000	58.46	39.2	1.49
December	------	56.07	40.6	1.38	50.66	39.5	1.283	59.17	40.6	1.455	43.74	43.7	1.001	------	------	------

Year and month	Illinois—Continued	Indiana	Maine	Massachusetts	Michigan	Minnesota
	Chicago City	State	State	State	State	State
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: December	$62.30	41.2	$1.51	$60.58	40.9	$1.480	------	------	------	$52.13	------	------	$64.81	40.3	$1.611	$56.14	41.5	$1.353
1949: January	61.20	40.5	1.51	59.30	40.2	1.476	------	------	------	51.48	------	------	65.03	39.9	1.633	55.49	40.8	1.361
February	60.58	40.1	1.51	58.96	40.1	1.471	------	------	------	51.69	------	------	64.64	40.0	1.617	54.96	40.3	1.365
March	59.91	39.7	1.51	58.38	39.7	1.469	$46.13	40.3	$1.145	51.41	------	------	61.60	38.6	1.600	55.02	40.2	1.368
April	59.00	39.0	1.51	57.32	38.6	1.485	45.46	39.4	1.153	50.65	------	------	62.39	38.8	1.605	53.77	39.4	1.365
May	59.29	39.2	1.51	59.41	39.8	1.492	45.11	39.5	1.143	50.38	------	------	60.86	38.1	1.603	53.75	39.5	1.359
June	59.70	39.3	1.52	59.45	39.8	1.493	44.52	39.1	1.140	50.86	------	------	63.99	39.6	1.615	54.37	39.8	1.366
July	59.94	39.4	1.52	59.43	39.5	1.505	43.56	38.3	1.138	51.48	------	------	64.54	39.3	1.626	54.70	40.4	1.35
August	60.29	40 0	1.51	[3]59.85	[3]39.8	[3]1.50	44.85	39.7	1.129	50.59	------	------	64.03	39.7	1.617	55.39	41.7	1.33
September	60.87	40.0	1.52	60.78	40.5	1.50	45.36	39.3	1.153	52.31	------	------	65.03	39.9	1.631	55.28	40.3	1.37
October	60.45	40.1	1.51	59.62	40.3	1.48	47.53	41.0	1.158	*51.51	------	------	64.03	39.7	1.618	56.21	40.9	1.37
November	60.20	39.6	1.52	58.01	39.4	1.47	44.92	38.8	1.159	51.64	------	------	59.90	37.4	1.607	55.49	40.3	1.38
December	------	60.24	40.2	1.50	46.82	40.5	1.157	53.07	------	------	61.50	37.8	1.634	57.34	41.0	1.40

See footnotes at end of table.

TABLE C–5: Hours and Gross Earnings of Production Workers in Manufacturing Industries for Selected States and Areas [1]—Continued

Year and month	Minnesota—Continued									Missouri			New Hampshire			New Jersey		
	Duluth			Minneapolis			St. Paul			State			State			State		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkyl. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: December	$57.11	40.3	$1.417	$54.81	40.6	$1.350	$55.23	40.4	$1.367	.....	.....	.....	.....	.....	.....	$59.97	40.9	$1.465
1949: January	55.37	39.3	1.409	53.16	39.0	1.363	55.74	40.1	1.390	.....	.....	.....	.....	.....	.....	59.07	40.4	1.467
February	56.72	39.8	1.425	54.80	40.0	1.370	55.38	40.1	1.394	.....	.....	.....	.....	.....	.....	58.89	40.2	1.463
March	56.43	39.6	1.430	54.51	39.7	1.373	56.52	40.0	1.413	.....	.....	.....	.....	.....	.....	58.68	40.0	1.467
April	55.87	39.1	1.430	53.66	39.1	1.372	55.97	39.5	1.417	.....	.....	.....	.....	.....	.....	56.84	38.8	1.464
May	55.79	39.1	1.430	54.12	39.3	1.377	54.50	38.6	1.412	.....	.....	.....	.....	.....	.....	57.28	39.2	1.460
June	55.72	39.4	1.451	55.22	39.7	1.391	55.69	39.3	1.417	.....	.....	.....	.....	.....	.....	58.70	39.7	1.467
July	55.48	38.0	1.46	55.24	39.6	1.40	56.85	39.7	1.43	$52.64	39.5	$1.334	$45.75	38.5	$1.19	58.63	39.6	1.478
August	56.11	39.4	1.42	55.44	39.6	1.40	56.63	39.6	1.43	52.43	39.6	1.326	45.63	38.6	1.18	57.82	39.3	1.469
September	55.21	39.1	1.41	57.28	40.8	1.40	58.34	40.4	1.44	52.25	39.3	1.330	46.57	39.3	1.18	59.32	40.1	1.477
October	53.66	39.4	1.36	57.04	40.6	1.41	57.64	40.0	1.44	51.67	39.1	1.323	45.02	37.9	1.19	59.00	39.8	1.483
November	52.91	37.9	1.40	55.38	39.5	1.40	58.62	40.4	1.451	50.41	37.9	1.330	44.71	37.7	1.19	59.13	39.9	1.481
December	54.97	38.9	1.41	56.65	40.2	1.41	59.19	40.8	1.45	50.88	38.6	1.318	46.25	39.1	1.18	60.64	40.6	1.494

Year and month	New York																	
	State			Albany–Schenectady–Troy			Binghamton–Endicott–Johnson City			Buffalo			Elmira			Kingston–Newburgh–Poughkeepsie		
1948: December	$59.73	39.6	$1.51	$61.96	41.2	$1.50	$56.74	40.1	$1.41	$62.13	40.7	$1.53	$57.65	40.3	$1.43	$51.98	39.3	$1.32
1949: January	59.22	38.9	1.52	59.81	40.3	1.49	55.19	38.9	1.42	60.90	39.9	1.53	56.55	39.7	1.42	50.38	38.5	1.31
February	59.13	38.9	1.52	57.81	39.8	1.45	54.72	38.7	1.42	60.81	39.9	1.52	55.55	39.2	1.42	51.62	39.2	1.32
March	58.69	38.6	1.52	57.93	39.1	1.48	53.46	37.8	1.41	60.60	39.7	1.53	56.12	39.4	1.42	50.97	38.7	1.32
April	56.42	37.5	1.50	57.45	38.6	1.49	52.52	36.9	1.42	59.77	39.1	1.53	56.82	39.7	1.43	50.08	37.9	1.32
May	56.71	38.0	1.49	57.66	38.8	1.49	52.86	37.4	1.41	60.88	39.5	1.54	57.27	40.2	1.43	51.14	38.4	1.33
June	[2]55.73	[2]38.0	[2]1.47	56.71	38.5	1.47	52.77	37.4	1.41	61.35	39.8	1.54	58.46	41.0	1.43	51.29	38.3	1.34
July	56.60	38.1	1.49	57.15	38.9	1.47	53.19	36.9	1.44	60.76	39.5	1.54	58.75	41.2	1.43	51.99	38.9	1.34
August	56.61	37.9	1.49	57.13	38.5	1.48	52.75	36.9	1.43	61.15	40.1	1.53	55.74	39.8	1.40	51.02	38.4	1.33
September	58.24	38.7	1.50	57.66	39.1	1.48	53.24	37.1	1.43	61.36	40.0	1.53	57.43	40.1	1.43	52.99	39.6	1.34
October	57.60	38.7	1.49	57.18	39.0	1.47	54.78	38.2	1.43	60.62	39.9	1.52	56.07	39.5	1.42	52.58	39.2	1.34
November	56.74	38.4	1.48	57.56	38.9	1.48	54.48	37.6	1.45	61.16	39.5	1.55	56.19	39.4	1.42	52.48	38.8	1.35
December	57.98	38.6	1.50	58.83	39.5	1.49	56.08	38.2	1.47	63.03	40.4	1.56	57.01	39.7	1.44	53.09	39.2	1.36

Year and month	New York—Continued												North Carolina			Oklahoma		
	New York City			Rochester			Syracuse			Utica–Rome–Herkimer–Little Falls			State			State		
1948: December	$62.63	37.9	$1.66	$58.25	39.6	$1.47	$55.87	39.9	$1.40	$54.41	39.41	$1.38	$41.58	38.1	$1.093	$54.54	42.3	$1.289
1949: January	62.79	37.5	1.69	58.04	39.7	1.46	56.28	40.6	1.39	53.98	38.9	1.39	40.50	37.0	1.096	53.80	41.3	1.302
February	63.40	37.6	1.70	57.88	39.4	1.47	55.78	40.3	1.38	53.90	39.1	1.38	40.36	37.0	1.091	54.08	41.6	1.300
March	63.08	37.5	1.69	57.47	39.0	1.47	55.87	40.3	1.39	52.19	37.8	1.38	39.88	36.5	1.092	52.70	40.9	1.288
April	58.96	35.9	1.64	56.87	38.6	1.47	53.86	39.2	1.38	51.94	37.7	1.38	38.05	35.1	1.086	52.35	40.4	1.296
May	59.76	36.9	1.62	56.58	38.5	1.47	53.81	39.0	1.38	50.12	36.7	1.36	37.77	34.7	1.088	51.52	40.3	1.279
June	[2]56.96	[2]37.1	[2]1.54	56.36	38.3	1.47	53.92	39.3	1.37	51.17	37.5	1.36	39.09	35.9	1.089	52.16	41.2	1.267
July	58.24	37.1	1.57	57.10	39.1	1.46	52.64	38.3	1.37	51.45	37.7	1.37	[3]38.21	[3]36.6	[3]1.045	53.53	41.6	1.288
August	[4]57.62	[4]36.7	[4]1.57	56.64	38.8	1.46	54.89	39.7	1.38	[4]51.76	37.8	1.37	39.89	38.6	1.033	53.61	41.7	1.287
September	60.01	38.0	1.58	57.51	39.4	1.46	55.94	40.1	1.39	52.16	37.9	1.38	40.85	39.5	1.035	53.85	41.2	1.307
October	58.83	37.7	1.56	57.53	39.4	1.46	56.15	40.8	1.37	56.55	40.4	1.40	[4]41.86	40.1	[4]1.040	53.96	42.2	1.279
November	57.46	37.5	1.53	58.20	39.6	1.47	54.73	40.2	1.36	54.99	39.9	1.38	41.89	39.9	1.050	54.67	42.4	1.289
December	58.51	37.4	1.56	59.19	39.8	1.49	56.32	40.4	1.39	55.02	39.8	1.38	42.37	40.1	1.057	54.17	42.1	1.286

See footnotes at end of table.

TABLE C–5: Hours and Gross Earnings of Production Workers in Manufacturing Industries for Selected States and Areas [1]—Continued

Year and month	Pennsylvania																	
	State			Allentown-Bethlehem			Erie			Harrisburg			Johnstown			Lancaster		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: December	$53.39	39.7	$1.344	$53.44	38.7	$1.385	$59.74	41.6	$1.438	$51.55	40.5	$1.306	$57.21	37.2	$1.541	$52.78	42.1	$1.256
1949: January	52.92	39.2	1.350	54.34	38.9	1.406	61.03	42.3	1.445	53.35	40.8	1.315	60.95	38.9	1.570	50.79	41.0	1.241
February	52.80	39.2	1.346	53.17	38.6	1.383	59.40	41.1	1.446	51.01	39.4	1.303	58.63	38.2	1.539	50.51	40.7	1.243
March	52.58	39.0	1.349	52.84	38.2	1.385	57.66	39.7	1.453	51.04	39.6	1.299	57.87	38.0	1.527	49.33	40.2	1.225
April	50.98	37.9	1.344	52.12	37.1	1.406	57.22	39.3	1.458	50.19	38.5	1.313	58.56	38.2	1.539	47.20	38.7	1.220
May	51.48	38.4	1.342	53.00	37.8	1.405	54.70	37.9	1.445	50.55	38.9	1.308	57.18	37.5	1.529	48.64	39.7	1.221
June	50.94	38.0	1.340	50.58	36.6	1.386	54.76	38.2	1.432	49.87	38.3	1.303	53.72	35.6	1.513	48.41	39.7	1.220
July	50.22	37.5	1.338	49.28	35.6	1.389	56.97	40.0	1.424	46.16	35.9	1.293	*52.05	34.3	1.522	48.67	40.1	1.212
August	50.74	37.9	1.337	50.03	36.7	1.367	56.46	39.4	1.432	*47.07	37.2	1.286	*51.49	34.0	*1.515	47.96	39.7	1.208
September	51.31	38.3	1.339	*51.92	*37.6	1.381	*59.78	41.8	*1.429	*48.63	38.0	*1.284	*53.23	*35.0	*1.519	48.31	40.0	1.205
October	*49.71	*38.7	*1.285	*49.90	38.9	*1.275	*57.18	*40.1	*1.425	*48.37	*40.9	*1.187	*39.79	*35.6	*1.117	*48.90	*40.4	*1.209
November	49.78	38.0	1.311	52.04	37.3	1.390	56.51	40.3	1.403	46.66	36.8	1.269	53.76	35.7	1.507	48.35	39.7	1.216
December	52.64	39.2	1.342	55.18	38.9	1.419	58.72	40.8	1.441	47.95	38.0	1.263	57.68	38.0	1.518	50.58	40.8	1.252

Year and month	Pennsylvania—Continued												Rhode Island		
	Philadelphia			Pittsburgh			Reading-Lebanon			Scranton			York-Adams			State		
1948: December	$57.96	40.2	$1.443	$62.73	39.7	$1.580	$54.80	39.6	$1.390	$42.43	37.6	$1.129	$47.43	40.9	$1.179	$48.75	39.2	$1.244
1949: January	57.17	39.4	1.451	62.74	39.5	1.586	52.95	38.8	1.374	40.79	36.4	1.120	47.17	40.3	1.189	48.08	38.8	1.241
February	56.88	39.1	1.453	62.67	39.6	1.582	53.93	39.4	1.376	42.46	38.1	1.114	46.48	40.5	1.172	48.04	38.9	1.236
March	57.34	39.3	1.461	62.05	39.2	1.583	54.26	39.5	1.380	41.94	37.7	1.112	46.12	40.4	1.162	47.72	38.9	1.227
April	55.51	38.0	1.461	60.84	38.6	1.576	51.42	37.3	1.384	40.08	36.4	1.102	43.65	38.6	1.160	47.33	38.3	1.235
May	56.33	38.6	1.459	60.50	38.6	1.568	52.26	38.2	1.374	41.71	37.6	1.111	43.61	38.8	1.137	47.53	38.5	1.235
June	56.90	38.9	1.463	59.70	37.8	1.578	51.48	37.9	1.364	42.05	37.7	1.112	43.40	39.1	1.127	47.65	38.8	1.227
July	*56.58	38.6	1.468	58.02	36.8	1.577	50.79	37.7	1.351	*42.06	37.7	1.117	42.65	39.2	*1.113	47.65	38.7	1.232
August	*56.81	38.7	1.470	59.48	37.8	1.569	*52.07	38.4	1.358	*41.99	37.8	1.112	43.81	40.1	1.116	46.01	37.5	1.228
September	*57.98	39.3	1.474	*58.52	*36.9	*1.587	*51.76	38.2	1.360	*42.94	38.5	1.118	*42.72	*39.5	1.106	48.34	39.1	1.236
October	*57.56	39.4	*1.462	*56.26	*36.2	*1.551	*53.15	39.3	1.356	*43.22	38.7	*1.117	*44.96	*41.5	*1.102	47.27	38.0	1.245
November	57.13	39.3	1.456	55.27	35.3	1.568	53.39	38.9	1.375	42.91	38.7	1.109	44.73	41.3	1.096	48.96	39.3	1.247
December	57.33	39.8	1.441	60.78	39.0	1.556	53.86	39.0	1.385	43.86	38.7	1.132	46.67	41.4	1.142	50.27	40.2	1.251

Year and month	Tennessee			Texas			Utah			Washington			Wisconsin					
	State			State			State			State			State			Kenosha City		
1948: December	$43.98	40.2	$1.094	$53.93	42.9	$1.257	$56.71	40.8	$1.39	.....	.....	.....	$58.15	41.7	$1.396	$61.22	39.3	$1.558
1949: January	43.80	39.5	1.109	53.42	42.5	1.257	57.31	39.8	1.44	.....	.....	.....	57.30	40.9	1.401	59.30	38.2	1.554
February	42.90	39.0	1.110	53.13	42.0	1.265	56.66	39.9	1.42	.....	.....	.....	57.14	40.9	1.398	61.03	39.2	1.557
March	43.51	39.2	1.110	53.17	41.8	1.272	57.12	40.8	1.40	.....	.....	.....	56.40	40.4	1.397	60.90	39.1	1.559
April	43.33	39.0	1.111	53.25	41.8	1.274	57.95	41.1	1.41	.....	.....	.....	54.98	39.3	1.399	53.03	34.3	1.547
May	42.94	38.9	1.104	53.05	42.0	1.263	58.23	41.3	1.41	.....	.....	.....	56.10	40.0	1.403	58.89	37.9	1.556
June	43.65	39.5	1.105	52.96	41.7	1.270	57.08	40.2	1.42	.....	.....	.....	56.28	40.2	1.400	66.97	41.6	1.610
July	43.77	39.5	1.108	53.92	41.8	1.290	54.41	40.3	1.35	.....	.....	.....	54.40	40.4	1.347	62.17	39.6	1.570
August	43.96	39.5	1.113	54.22	42.1	1.288	54.77	39.4	1.39	$64.25	39.2	$1.639	53.63	40.1	1.338	59.40	38.2	1.553
September	45.63	40.6	1.124	54.78	42.4	1.292	52.52	40.4	1.30	*62.78	*38.8	1.618	55.81	40.4	1.382	63.91	40.8	1.565
October	44.97	40.4	*1.113	*55.21	*42.6	*1.296	50.96	37.2	1.37	63.97	39.1	1.636	57.19	41.1	1.390	62.18	39.9	1.560
November	44.18	39.8	1.110	56.10	42.6	1.317	54.94	40.4	1.36	64.41	38.8	1.660	55.94	40.2	1.390	58.70	37.6	1.559
December	44.67	40.1	1.114	55.46	42.4	1.308	56.70	40.5	1.40	65.14	39.1	1.666	57.86	41.1	1.408	65.30	41.7	1.567

See footnotes at end of table.

TABLE C–5: Hours and Gross Earnings of Production Workers in Manufacturing Industries for Selected States and Areas [1]—Continued

Year and Month	Wisconsin—Continued												Wyoming		
	La Crosse City			Madison City			Milwaukee County			Racine City			State		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: December	$55.24	40.1	$1.378	$57.98	40.9	$1.416	$62.54	41.2	$1.516	$64.83	40.9	$1.586	------	------	------
1949: January	55.25	39.9	1.385	55.16	39.3	1.403	61.57	40.5	1.520	65.07	40.9	1.593	------	------	------
February	55.66	39.8	1.400	53.46	38.5	1.389	60.96	40.2	1.517	64.81	40.7	1.591	------	------	------
March	56.79	40.0	1.418	54.68	39.0	1.403	59.44	39.4	1.510	63.74	40.2	1.587	------	------	------
April	55.84	39.4	1.417	53.64	38.5	1.392	58.08	38.3	1.515	61.80	39.1	1.579	------	------	------
May	57.16	39.5	1.448	54.25	38.5	1.410	59.04	38.9	1.519	61.94	39.3	1.576	------	------	------
June	58.86	40.0	1.470	54.22	37.6	1.443	61.15	40.0	1.529	63.08	40.0	1.577	------	------	------
July	58.12	40.6	1.431	56.88	39.0	1.457	60.00	39.4	1.524	63.16	40.1	1.576	------	------	------
August	59.37	40.8	1.454	54.79	38.2	1.436	58.96	38.8	1.521	61.06	39.0	1.567	$64.99	39.2	$1.658
September	61.16	41.5	1.473	52.22	36.4	1.437	60.79	39.7	1.530	61.63	39.4	1.565	64.71	37.3	1.732
October	60.13	40.8	1.475	55.04	38.9	1.417	60.97	40.0	1.524	60.95	39.0	1.563	61.60	37.4	1.647
November	58.60	39.2	1.417	58.20	40.8	1.427	59.43	39.2	1.515	57.75	37.3	1.546	68.82	42.5	1.620
December	61.68	41.8	1.474	60.44	41.4	1.460	61.50	40.3	1.525	60.95	39.1	1.559	67.99	40.9	1.664

[1] State and area hours and gross earnings are prepared by various cooperating State agencies. Owing to differences in methodology the data may not be strictly comparable among the States or with the national averages. Variations in earnings among the States and areas reflect, to some extent, differences with respect to industrial composition. Revised data for all except the two most recent months will be identified by an asterisk (*) for the first month's publication of such data. A number of States also make available more detailed industry data as well as information for earlier periods which may be secured directly upon request to the appropriate State agency as listed in footnote 1, table A-10.

[2] Revised series not comparable with preceding data shown.

D: Prices and Cost of Living

TABLE D-1: Consumers' Price Index [1] for Moderate-Income Families in Large Cities, by Group of Commodities

[1935-39=100]

Year and month	All items	Food	Apparel	Rent	Fuel, electricity, and refrigeration [2]				Housefurnishings	Miscellaneous [3]
					Total	Gas and electricity	Other fuels	Ice		
1913: Average	70.7	79.9	69.3	92.2	61.9	(4)	(4)	(4)	80.1	80.9
1914: July	71.7	81.7	69.8	92.2	62.3	(4)	(4)	(4)	60.8	82.0
1918: December	118.0	149.6	147.9	97.1	90.4	(4)	(4)	(4)	121.2	83.1
1920: June	149.4	185.0	209.7	119.1	104.8	(4)	(4)	(4)	169.7	100.7
1929: Average	122.5	132.5	115.3	141.4	112.5	(4)	(4)	(4)	111.7	104.6
1932: Average	97.6	86.5	90.8	116.9	103.4	(4)	(4)	(4)	85.4	101.7
1939: Average	99.4	95.2	100.5	104.3	99.0	98.9	99.1	100.2	101.3	100.7
August 15	98.6	93.5	100.3	104.3	97.5	99.0	95.2	100.0	100.6	100.4
1940: Average	100.2	96.6	101.7	104.6	99.7	98.0	101.9	100.4	100.5	101.1
1941: Average	105.2	105.5	106.3	106.2	102.2	97.1	108.3	104.1	107.3	104.0
January 1	100.8	97.6	101.2	105.0	100.8	97.5	105.4	100.3	100.2	101.6
December 15	110.5	113.1	114.8	108.2	104.1	98.7	113.1	105.1	116.8	107.7
1942: Average	116.5	123.9	124.2	108.5	105.4	98.7	115.1	110.0	122.2	110.9
1943: Average	123.6	139.0	129.7	108.0	107.7	96.1	120.7	114.2	125.6	115.8
1944: Average	125.5	136.1	138.8	108.2	109.8	95.8	126.0	115.8	126.4	121.3
1945: Average	128.4	139.1	145.9	108.3	110.3	95.0	128.3	115.9	145.8	124.1
August 15	129.3	140.9	146.4	(5)	111.4	95.2	131.0	115.8	146.0	124.5
1946: Average	139.3	159.6	160.2	108.6	112.4	92.4	138.9	115.9	159.2	128.8
June 15	133.3	145.6	157.2	108.5	110.5	92.1	133.0	115.1	156.1	127.9
November 15	152.2	187.7	171.0	(5)	114.8	91.8	142.6	117.9	171.0	132.5
1947: Average	159.2	193.8	185.8	111.2	121.1	92.0	156.1	125.9	184.4	139.9
December 15	167.0	205.9	191.2	115.4	127.8	92.6	171.1	129.8	191.4	144.4
1948: Average	171.2	210.2	198.0	117.4	133.9	94.3	183.4	135.2	195.8	149.9
December 15	171.4	205.0	200.4	119.5	137.8	95.3	191.3	138.4	198.6	154.0
1949: January 15	170.9	204.8	198.5	119.7	138.2	95.5	191.8	139.0	196.5	154.1
February 15	169.0	199.7	195.1	119.9	138.8	96.1	192.6	140.0	195.6	154.1
March 15	169.5	201.6	193.9	120.1	138.9	96.1	192.5	140.4	193.8	154.4
April 15	169.7	202.8	192.5	120.3	137.4	96.8	187.8	140.8	191.9	154.6
May 15	169.2	202.4	191.2	120.4	135.4	96.9	182.7	140.1	189.5	154.5
June 15	169.6	204.3	190.3	120.6	135.6	96.9	183.0	140.0	187.3	154.2
July 15	168.5	201.7	188.5	120.7	135.6	96.9	183.1	139.9	186.8	154.3
August 15	168.8	202.6	187.4	120.8	135.8	97.1	183.1	141.1	184.8	154.8
September 15	169.6	204.2	187.2	121.3	137.0	97.1	185.9	141.8	185.6	155.2
October 15	168.5	200.6	186.8	121.5	138.4	97.0	188.3	145.6	185.2	155.2
November 15	168.6	200.8	186.3	122.0	139.1	97.0	190.0	146.6	185.4	154.9
December 15	167.5	197.3	185.8	122.2	139.7	97.2	191.6	145.5	183.4	155.5

[1] The "Consumers' price index for moderate-income families in large cities," formerly known as the "Cost of living index" measures average changes in retail prices of selected goods, rents, and services weighted by quantities bought in 1934-36 by families of wage earners and moderate-income workers in large cities whose incomes averaged $1,524 in 1934-36.

Bureau of Labor Statistics Bulletin 699, Changes in Cost of Living in Large Cities in the United States, 1913-41, contains detailed description of methods used in constructing this index. Additional information on the consumers' price index is given in a compilation of reports published by the Office of Economic Stabilization, Report of the President's Committee on the Cost of Living.

Mimeographed tables are available upon request showing indexes for each of the cities regularly surveyed by the Bureau and for each of the major groups of living essentials. Indexes for all large cities combined are available since 1913. The beginning date for series of indexes for individual cities varies from city to city but indexes are available for most of the 34 cities since World War I.

[2] The group index formerly entitled "Fuel, electricity, and ice" is now designated "Fuel, electricity, and refrigeration". Indexes are comparable with those previously published for "Fuel, electricity, and ice." The subgroup "Other fuels and ice" has been discontinued; separate indexes are presented for "Other fuels" and "Ice."

[3] The miscellaneous group covers transportation (such as automobiles and their upkeep and public transportation fares); medical care (including professional care and medicines); household operation (covering supplies and different kinds of paid services); recreation (that is, newspapers, motion pictures and tobacco products); personal care (barber- and beauty-shop service and toilet articles); etc.

[4] Data not available.

[5] Rents not surveyed this month.

TABLE D-2: Consumers' Price Index for Moderate-Income Families, by City,[1] for Selected Periods

[1935-39=100]

City	Dec. 15, 1949	Nov. 15, 1949	Oct. 15, 1949	Sept. 15, 1949	Aug. 15, 1949	July 15, 1949	June 15, 1949	May 15, 1949	Apr. 15, 1949	Mar. 15, 1949	Feb. 15, 1949	Jan. 15, 1949	Dec. 15, 1948	June 15, 1948	Aug. 15, 1939
Average	167.5	168.6	168.5	169.6	168.8	168.5	169.6	169.2	169.7	169.5	169.0	170.9	171.4	133.3	98.6
Atlanta, Ga	(2)	170.5	(2)	(2)	172.3	(2)	(2)	170.5	(2)	(2)	170.1	(2)	(2)	133.8	98.0
Baltimore, Md	170.9	(2)	(2)	174.0	(2)	(2)	174.2	(2)	(2)	173.9	(2)	(2)	174.0	135.6	98.7
Birmingham, Ala	168.4	170.5	170.3	171.8	171.1	171.0	172.1	171.4	171.6	171.8	171.7	173.7	174.8	136.5	98.5
Boston, Mass	162.7	164.0	164.1	165.4	163.8	162.6	163.3	162.2	162.4	162.5	161.4	163.9	164.7	127.9	97.1
Buffalo, N. Y	(2)	(2)	167.4	(2)	(2)	169.4	(2)	(2)	168.3	(2)	(2)	169.8	(2)	132.6	98.5
Chicago, Ill	173.2	175.3	174.4	175.8	174.4	173.9	175.9	174.2	175.0	174.5	172.9	174.9	175.4	130.9	98.7
Cincinnati, Ohio	167.8	168.3	168.7	170.8	168.8	168.7	170.5	169.1	170.7	170.7	169.7	172.0	172.2	132.2	97.3
Cleveland, Ohio	(2)	170.3	(2)	(2)	171.6	(2)	(2)	171.5	(2)	(2)	172.5	(2)	(2)	135.7	100.0
Denver, Colo	(2)	(2)	164.6	(2)	(2)	167.8	(2)	(2)	169.9	(2)	(2)	171.0	(2)	131.7	98.6
Detroit, Mich	169.1	169.8	168.7	170.4	169.9	170.4	172.0	171.6	171.1	170.8	170.7	171.6	172.8	136.4	98.5
Houston, Tex	173.2	173.3	172.0	171.4	170.4	170.4	170.5	170.6	171.0	170.2	170.2	172.6	173.8	130.5	100.7
Indianapolis, Ind	(2)	(2)	172.1	(2)	(2)	171.0	(2)	(2)	171.9	(2)	(2)	173.6	(2)	131.9	98.0
Jacksonville, Fla	175.5	(2)	(2)	176.5	(2)	(2)	174.9	(2)	(2)	174.3	(2)	(2)	176.2	138.4	98.5
Kansas City, Mo	(2)	(2)	161.1	(2)	(2)	162.1	(2)	(2)	163.3	(2)	(2)	165.1	(2)	129.4	98.6
Los Angeles, Calif	165.4	166.6	166.5	167.1	166.8	167.2	168.7	169.6	171.2	171.0	[3] 171.3	172.7	172.7	136.1	100.5
Manchester, N. H	(2)	(2)	169.3	(2)	(2)	170.0	(2)	(2)	170.6	(2)	(2)	172.3	(2)	134.7	97.8
Memphis, Tenn	170.8	(2)	(2)	172.7	(2)	(2)	173.5	(2)	(2)	173.3	(2)	(2)	174.3	134.5	97.8
Milwaukee, Wis	(2)	168.4	(2)	(2)	166.9	(2)	(2)	169.3	(2)	(2)	168.7	(2)	(2)	131.2	97.0
Minneapolis, Minn	167.4	(2)	(2)	168.3	(2)	(2)	169.1	(2)	(2)	169.3	(2)	(2)	170.8	129.4	99.7
Mobile, Ala	167.4	(2)	(2)	169.2	(2)	(2)	170.3	(2)	(2)	171.1	(2)	(2)	173.5	132.9	98.6
New Orleans, La	(2)	173.3	(2)	(2)	173.8	(2)	(2)	172.5	(2)	(2)	173.2	(2)	(2)	138.0	99.7
New York, N. Y	164.9	165.8	165.9	167.5	166.8	167.1	167.0	166.8	168.1	167.4	166.8	169.2	169.2	135.8	99.0
Norfolk, Va	(2)	168.2	(2)	(2)	170.2	(2)	(2)	170.3	(2)	(2)	170.6	(2)	(2)	135.2	97.8
Philadelphia, Pa	167.3	168.6	168.9	169.6	168.7	167.5	169.2	169.9	169.6	169.0	168.5	170.4	170.6	132.5	97.8
Pittsburgh, Pa	170.3	171.3	171.1	172.3	172.4	171.9	173.1	172.9	173.0	172.7	172.1	174.6	174.9	134.7	98.4
Portland, Maine	162.8	(2)	(2)	164.9	(2)	(2)	165.8	(2)	(2)	165.0	(2)	(2)	167.1	128.7	97.1
Portland, Oreg	(2)	(2)	173.6	(2)	(2)	[4] 175.1	(2)	(2)	177.6	(2)	(2)	178.6	(2)	140.3	100.1
Richmond, Va	(2)	(2)	164.9	(2)	(2)	164.4	(2)	(2)	164.2	(2)	(2)	166.5	(2)	128.2	98.0
St. Louis, Mo	167.8	(2)	(2)	168.9	(2)	(2)	169.8	(2)	(2)	169.0	(2)	(2)	171.1	131.2	98.1
San Francisco, Calif	171.5	(2)	(2)	173.6	(2)	(2)	173.7	(2)	(2)	174.6	(2)	(2)	176.7	137.8	99.3
Savannah, Ga	(2)	(2)	173.4	(2)	(2)	173.3	(2)	(2)	174.9	(2)	(2)	176.7	(2)	140.6	99.3
Scranton, Pa	(2)	166.3	(2)	(2)	169.5	(2)	(2)	168.4	(2)	(2)	166.8	(2)	(2)	132.2	98.0
Seattle, Wash	(2)	171.6	(2)	(2)	170.8	(2)	(2)	172.5	(2)	(2)	174.3	(2)	(2)	137.0	100.3
Washington, D. C	(2)	166.2	(2)	(2)	166.0	(2)	(2)	165.3	(2)	(2)	164.1	(2)	(2)	133.8	98.6

[1] The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

[2] Through June 1947, consumers' price indexes were computed monthly for 21 cities and in March, June, September, and December for 13 additional cities; beginning July 1947 indexes were computed monthly for 10 cities and once every 3 months for 24 additional cities according to a staggered schedule.

[3] Corrected.

TABLE D–3: Consumers' Price Index for Moderate-Income Families, by City and Group of Commodities [1]

[1935–39=100]

City	Food		Apparel		Rent		Fuel, electricity, and refrigeration				Housefurnishings		Miscellaneous	
							Total		Gas and electricity					
	Dec. 15, 1949	Nov. 15, 1949	Dec. 15, 1949	Nov. 15, 1949	Dec 15, 1949	Nov. 15, 1949	Dec. 15, 1949	Nov. 15, 1949	Dec. 15, 1949	Nov. 15, 1949	Dec. 15, 1949	Nov. 15, 1949	Dec. 15, 1949	Nov. 15, 1949
Average	197.3	200.8	185.8	186.3	122.2	122.0	139.7	139.1	97.2	97.0	185.4	185.4	155.5	154.9
Atlanta, Ga	194.7	197.7	(1)	192.1	(2)	126.2	151.2	151.2	83.6	83.4	(1)	187.8	(1)	159.8
Baltimore, Md	208.1	211.9	180.7	(1)	119.1	(2)	151.1	150.5	127.5	126.1	192.9	(1)	153.2	(1) [3]
Birmingham, Ala	190.5	197.2	194.6	193.3	143.1	143.1	135.5	135.5	79.6	79.6	178.7	179.0	150.3	150.2
Boston, Mass	189.5	193.2	176.3	177.0	118.1	117.8	154.5	154.4	116.9	116.9	178.1	177.5	153.3	153.0
Buffalo, N. Y	189.3	193.2	(1)	(1)	(2)	(2)	146.0	145.5	110.0	110.0	(1)	(1)	(1)	(1)
Chicago, Ill	202.2	208.3	189.6	189.9	141.3	141.2	133.6	132.5	83.5	83.5	170.7	171.3	159.3	158.9
Cincinnati, Ohio	197.3	198.7	186.3	187.0	115.6	115.5	148.3	145.4	101.9	101.9	177.6	178.6	155.4	155.7
Cleveland, Ohio	203.2	206.0	(1)	185.2	(2)	127.8	146.7	145.1	105.6	105.6	(1)	168.6	(1)	153.0
Denver, Colo	196.2	200.2	(1)	(1)	(2)	(2)	112.2	112.2	69.2	69.2	(1)	(1)	(1)	(1)
Detroit, Mich	193.4	195.5	181.9	182.9	129.4	129.2	148.7	147.7	92.2	91.9	196.0	195.7	166.5	166.5
Houston, Tex	210.5	212.7	197.9	199.3	138.7	137.6	98.1	98.1	81.4	81.4	185.9	180.2	157.8	155.8
Indianapolis, Ind	194.5	196.9	(1)	(1)	(2)	(2)	161.7	157.4	86.6	86.6	(1)	(1)	(1)	(1)
Jacksonville, Fla	202.8	206.9	186.1	(1)	143.4	(2)	146.4	146.4	100.5	100.5	183.0	(1)	163.6	(1)
Kansas City, Mo	184.5	186.9	(1)	(1)	(2)	(2)	126.1	126.1	66.6	66.7	(1)	(1)	(1)	(1)
Los Angeles, Calif	197.2	200.5	180.7	181.0	126.5	126.4	98.1	98.1	89.3	89.3	183.2	182.3	154.6	155.0
Manchester, N. H	192.9	195.5	(1)	(1)	(2)	(2)	155.3	155.3	99.5	99.6	(1)	(1)	(1)	(1)
Memphis, Tenn	206.9	210.2	203.3	(1)	131.6	(2)	140.3	140.3	77.0	77.0	169.5	(1)	148.3	(1)
Milwaukee, Wis	196.1	199.3	(1)	184.2	(2)	131.9	147.3	147.2	110.9	110.9	(1)	184.9	(1)	148.1
Minneapolis, Minn	188.7	192.0	190.3	(1)	134.4	(2)	140.6	140.6	78.9	78.9	176.6	(1)	161.0	(1)
Mobile, Ala	201.3	203.6	188.3	(1)	126.7	(2)	129.1	129.0	84.0	83.8	166.7	(1)	146.2	(1)
New Orleans, La	211.7	213.2	(1)	199.3	(2)	115.0	113.1	113.1	75.1	75.1	(1)	191.3	(1)	145.6
New York, N. Y	198.8	201.5	183.0	183.4	108.9	108.9	139.6	139.5	101.9	101.7	174.7	174.4	158.0	157.2
Norfolk, Va	198.0	200.8	(1)	180.6	(2)	116.4	157.8	152.5	102.6	102.6	(1)	184.2	(1)	152.8
Philadelphia, Pa	193.5	196.8	184.4	184.8	121.3	121.2	145.9	147.2	108.9	108.9	191.6	191.4	152.4	152.1
Pittsburgh, Pa	200.8	205.4	214.9	216.1	121.4	121.4	138.2	138.4	103.4	103.3	188.3	188.9	150.2	146.3
Portland, Maine	187.2	188.4	187.9	(1)	115.0	(2)	151.1	151.1	105.7	105.7	181.7	(1)	152.6	(1)
Portland, Oreg	206.3	207.8	(1)	(1)	(2)	(2)	131.7	131.7	91.9	92.0	(1)	(1)	(1)	(1)
Richmond, Va	191.3	195.0	(1)	(1)	(2)	(2)	149.6	146.5	109.4	109.4	(1)	(1)	(1)	(1)
St. Louis, Mo	206.2	208.6	188.9	(1)	120.6	(2)	136.8	135.5	88.4	88.4	167.0	(1)	146.3	(1)
San Francisco, Calif	210.1	212.9	181.3	(1)	116.9	(2)	84.5	82.7	74.4	72.7	158.7	(1)	166.3	(1)
Savannah, Ga	201.8	207.1	(1)	(1)	(2)	(2)	152.4	152.4	108.6	108.6	(1)	(1)	(1)	(1)
Scranton, Pa	193.2	198.1	(1)	194.3	(2)	111.8	147.1	147.1	98.3	98.3	(1)	163.1	(1)	144.2
Seattle, Wash	203.1	207.4	(1)	184.2	(2)	124.9	128.3	128.3	91.7	91.7	(1)	185.9	(1)	160.0
Washington, D. C	196.1	202.6	(1)	210.3	(2)	106.4	142.9	141.2	104.3	100.6	(1)	195.4	(1)	156.9

[1] Prices of apparel, housefurnishings, and miscellaneous goods and services are obtained monthly in 10 cities and once every 3 months in 24 additional cities according to a staggered schedule.

[2] Rents are surveyed every 3 months in 34 large cities according to a staggered schedule.

TABLE D–4: Indexes of Retail Prices of Foods,[1] by Group, for Selected Periods

[1935-39=100]

Year and month	All foods	Cereals and bakery products	Meats, poultry, and fish	Meats				Chickens	Fish	Dairy products	Eggs	Fruits and vegetables				Beverages	Fats and oils	Sugar and sweets
				Total	Beef and veal	Pork	Lamb					Total	Fresh	Canned	Dried			
1923: Average	124.0	108.5	101.2							129.4	136.1	169.5	173.6	124.8	175.4	131.5	126.2	175.4
1926: Average	137.4	115.7	117.8							127.4	141.7	210.8	226.2	122.9	152.4	170.4	145.0	120.0
1929: Average	132.5	107.6	127.1							131.0	143.8	169.0	173.5	124.3	171.0	164.8	127.2	114.3
1932: Average	86.8	82.6	79.3							84.9	82.3	103.5	105.9	91.1	91.2	112.6	71.1	89.6
1939: Average	95.3	94.5	96.6	96.6	101.1	88.9	99.5	93.8	101.0	95.9	91.0	94.5	95.1	92.3	93.3	95.5	87.7	100.6
August	93.5	93.4	95.7	95.4	99.6	88.0	98.8	94.6	99.6	93.1	90.7	92.4	92.8	91.6	90.3	94.9	84.5	95.6
1940: Average	96.6	96.8	98.8	94.4	102.8	81.1	99.7	94.8	110.6	101.4	93.8	96.5	97.3	92.4	100.6	92.5	82.2	96.8
1941: Average	105.8	97.9	107.5	109.5	110.8	100.1	106.6	102.1	124.5	112.0	112.2	103.2	104.2	97.9	106.7	101.5	94.0	106.4
December	113.1	102.5	111.1	109.7	114.4	103.2	108.1	100.5	138.9	120.5	138.1	110.5	111.0	106.3	118.3	114.1	108.5	114.4
1942: Average	123.9	105.1	126.0	122.5	123.6	120.4	124.1	122.6	163.0	125.4	136.5	120.8	132.8	121.6	136.3	122.1	119.6	126.5
1943: Average	138.0	107.6	133.8	134.2	134.7	119.9	136.9	146.1	206.5	134.6	161.9	168.5	178.0	130.6	158.9	134.6	126.1	127.1
1944: Average	136.1	108.4	129.9	117.9	118.7	112.2	134.5	151.0	207.6	132.6	153.9	168.2	177.2	129.5	164.5	134.3	123.3	126.5
1945: Average	139.1	109.0	131.2	118.0	118.4	112.6	136.0	154.4	217.1	133.9	164.4	177.1	188.2	130.2	168.2	134.7	124.0	126.5
August	140.9	109.1	131.8	118.1	118.5	112.6	136.4	157.3	217.8	133.4	171.4	183.5	196.2	130.3	168.6	134.7	124.0	126.6
1946: Average	159.6	125.0	161.3	150.8	150.5	148.2	163.9	174.0	236.2	165.1	168.8	182.4	190.7	140.8	190.4	139.6	132.1	143.9
June	145.6	122.1	134.0	120.4	121.2	114.3	139.0	162.8	219.7	147.8	147.1	183.5	196.7	127.5	172.5	125.4	126.4	136.2
November	187.7	140.6	203.6	197.9	191.0	207.1	205.4	188.9	265.0	196.5	201.6	184.5	182.3	167.7	251.6	167.8	244.4	170.5
1947: Average	193.8	155.4	217.1	214.7	213.6	215.9	220.1	183.2	271.4	186.2	200.8	199.4	201.5	166.2	263.5	186.8	197.5	180.9
1948: Average	210.2	170.9	246.5	243.9	258.5	222.5	246.8	203.2	312.8	204.8	208.7	205.2	212.4	158.0	246.8	205.0	195.5	174.0
December	205.0	170.2	241.3	235.4	255.1	206.2	238.6	208.0	328.1	199.2	217.3	192.3	196.2	159.4	229.8	207.8	184.4	173.0
1949: January	204.8	170.5	235.9	228.2	244.5	203.1	234.4	208.9	331.7	196.0	209.6	205.2	213.3	159.2	228.4	208.7	174.7	173.4
February	199.7	170.0	221.4	212.3	220.5	196.3	228.4	199.0	327.2	192.5	179.6	213.7	224.9	158.6	234.6	209.0	189.8	174.3
March	201.6	170.1	229.6	222.5	230.3	206.4	240.7	198.9	325.9	190.3	180.1	214.5	226.0	158.0	227.9	208.5	155.1	175.6
April	202.8	170.3	234.4	228.5	233.3	209.5	271.0	201.2	321.3	184.9	183.8	218.6	231.5	157.1	228.3	208.2	149.8	176.2
May	202.4	170.1	232.3	228.0	235.2	203.9	275.5	190.5	315.4	182.6	190.9	220.7	234.6	156.3	227.5	207.2	144.4	176.1
June	204.3	169.7	240.6	239.3	247.8	216.0	278.4	184.4	312.6	182.0	198.0	217.9	231.1	155.3	227.3	207.6	142.9	176.5
July	201.7	169.5	236.0	234.4	245.3	209.8	265.5	182.8	307.7	182.2	204.1	210.2	221.2	154.2	228.1	208.2	141.0	176.2
August	202.6	169.4	239.5	237.3	246.3	221.9	247.8	191.5	308.9	184.9	222.2	201.9	211.4	149.7	229.6	208.8	144.0	176.5
September	204.2	169.7	243.6	242.0	249.9	227.6	254.7	192.5	311.9	185.3	232.6	199.8	209.0	148.0	230.1	211.0	148.3	176.8
October	200.6	169.1	235.1	233.1	248.2	207.7	246.1	184.6	306.8	186.7	227.8	194.5	202.3	147.0	228.5	213.8	144.5	177.5
November	200.8	169.2	229.1	226.4	248.5	189.7	242.0	184.5	300.6	186.4	207.8	202.0	212.7	146.2	224.7	265.3	139.7	178.9
December	197.3	169.2	223.2	220.0	245.2	178.3	238.1	179.5	299.0	186.2	178.0	198.2	208.0	145.1	224.3	292.5	136.7	178.8

[1] The Bureau of Labor Statistics retail food prices are obtained monthly during the first three days of the week containing the fifteenth of the month, through voluntary reports from chain and independent retail food dealers. Articles included are selected to represent food sales to moderate-income families.

The indexes, based on the retail prices of 50 foods, are computed by the fixed-base-weighted-aggregate method, using weights representing (1) relative importance of chain and independent store sales, in computing city average prices; (2) food purchases by families of wage earners and moderate-income workers, in computing city indexes; and (3) population weights, in combining city aggregates in order to derive average prices and indexes for all cities combined.

Indexes of retail food prices in 56 large cities combined, by commodity groups, for the years 1923 through 1948 (1935–39=100), may be found in Bulletin No. 965, "Retail Prices of Food, 1948," Bureau of Labor Statistics, U. S. Department of Labor, table 3, p. 7. Mimeographed tables of the same data, by months, January 1935 to date, are available upon request.

TABLE D–5: Indexes of Retail Prices of Foods, by City

[1935–39=100]

City	Dec. 1949	Nov. 1949	Oct. 1949	Sept. 1949	Aug. 1949	July 1949	June 1949	May 1949	Apr. 1949	Mar. 1949	Feb. 1949	Jan. 1949	Dec. 1948	June 1948	Aug. 1939
United States	197.3	200.8	200.6	204.2	202.6	201.7	204.3	202.4	202.8	201.6	199.7	204.8	205.0	145.6	93.8
Atlanta, Ga	194.7	197.7	199.9	206.9	203.9	198.3	200.5	197.0	197.6	198.3	194.7	202.1	203.3	141.0	92.5
Baltimore, Md	208.1	211.9	211.5	216.4	215.4	211.5	216.2	213.0	212.4	212.9	210.3	213.5	214.6	153.4	94.7
Birmingham, Ala	190.5	197.2	197.2	201.9	199.8	196.6	201.4	198.5	198.3	197.4	195.8	202.0	204.8	147.7	90.7
Boston, Mass	189.5	193.2	193.7	197.1	194.6	194.2	195.9	192.4	191.3	190.9	187.8	194.1	194.2	138.0	93.5
Bridgeport, Conn	197.0	200.3	198.2	204.8	201.1	200.3	205.0	201.7	198.8	197.9	194.9	200.0	201.0	139.1	93.2
Buffalo, N. Y	189.3	193.2	195.1	198.2	199.5	200.2	199.6	198.9	195.5	195.0	191.4	197.9	200.0	140.2	94.5
Butte, Mont	194.1	199.8	200.2	201.4	200.8	202.1	206.7	202.6	204.6	201.3	201.5	205.0	205.7	139.7	94.1
Cedar Rapids, Iowa [1]	200.3	203.4	201.2	205.2	203.9	205.1	211.2	208.1	209.0	207.8	206.8	211.5	211.8	148.2	-------
Charleston, S. C	187.9	189.2	190.5	193.0	193.9	190.3	195.4	191.3	195.2	193.8	190.8	196.9	197.1	140.8	95.1
Chicago, Ill	202.2	206.3	206.5	212.1	209.2	207.4	211.6	207.0	208.5	205.9	202.7	207.3	208.2	142.8	92.3
Cincinnati, Ohio	197.3	198.7	199.7	205.4	201.6	200.5	204.2	200.3	203.2	201.9	199.7	205.5	205.2	141.4	93.4
Cleveland, Ohio	203.2	206.0	209.2	211.1	210.4	208.9	211.2	208.1	209.2	210.2	207.2	212.8	213.0	149.3	93.6
Columbus, Ohio	179.3	180.8	183.6	187.9	186.2	182.9	185.4	184.3	183.6	184.3	182.3	188.6	189.4	136.4	88.1
Dallas, Tex	201.9	205.0	204.8	207.0	208.3	204.8	204.9	204.4	204.4	202.0	200.7	207.1	208.2	142.4	91.7
Denver, Colo	196.2	200.2	196.0	200.2	199.1	204.5	208.2	208.6	208.1	207.0	204.5	209.6	211.0	145.3	92.7
Detroit, Mich	193.4	195.5	192.4	197.4	197.2	197.9	201.5	200.0	197.0	195.1	194.5	197.3	198.7	145.4	90.6
Fall River, Mass	193.8	198.1	198.7	201.7	201.2	199.3	201.1	197.0	199.4	199.6	195.3	199.8	200.4	138.1	98.4
Houston, Tex	210.5	212.7	212.4	212.2	211.6	211.0	211.8	211.3	212.6	209.6	208.0	215.7	218.1	144.0	97.8
Indianapolis, Ind	194.5	196.9	198.9	200.5	199.3	195.7	200.5	197.3	196.7	197.9	195.5	200.9	204.6	141.5	90.7
Jackson, Miss. [1]	204.5	206.5	204.4	206.0	205.5	207.8	205.5	204.7	203.1	203.7	205.4	209.5	213.8	150.6	-------
Jacksonville, Fla	202.8	206.9	205.9	208.5	206.0	207.0	208.3	205.6	206.6	206.0	201.2	210.6	209.9	150.8	95.8
Kansas City, Mo	184.5	186.9	186.0	190.7	187.2	188.5	190.5	189.0	189.8	189.8	189.2	194.6	194.7	134.8	91.5
Knoxville, Tenn. [1]	220.0	223.3	223.6	227.3	226.5	222.3	226.0	223.2	220.5	222.1	221.3	230.0	233.9	165.6	-------
Little Rock, Ark	197.0	198.8	198.2	201.4	201.6	196.8	204.2	201.9	201.2	198.0	197.2	199.8	201.6	139.1	94.0
Los Angeles, Calif	197.2	200.5	200.6	202.8	201.7	202.3	206.6	208.7	212.1	211.2	210.8	216.5	214.9	154.8	94.6
Louisville, Ky	185.0	188.3	189.7	194.3	192.4	189.4	194.1	189.4	187.6	187.7	189.2	193.9	196.6	135.6	92.1
Manchester, N. H	192.9	195.5	197.2	203.3	202.1	200.3	205.2	199.4	199.7	199.3	196.4	201.8	203.6	144.4	94.9
Memphis, Tenn	208.9	210.2	209.7	213.0	214.3	217.1	215.3	215.6	214.9	211.9	212.2	217.1	217.9	153.6	89.7
Milwaukee, Wis	196.1	199.3	199.4	203.7	200.0	201.6	205.6	204.9	205.8	203.2	200.8	206.5	205.0	144.3	91.1
Minneapolis, Minn	188.7	192.0	191.1	192.8	190.1	190.6	194.3	193.5	193.1	192.4	190.1	195.3	195.6	137.5	95.0
Mobile, Ala	201.3	203.6	204.8	207.0	206.6	205.8	207.9	204.6	203.9	206.9	207.4	214.5	211.8	149.8	95.5
Newark, N. J	196.1	198.6	198.2	201.2	198.5	198.5	199.6	198.8	199.7	197.6	196.3	200.1	201.2	147.9	95.6
New Haven, Conn	193.1	[2] 198.4	197.9	198.3	194.2	194.7	198.5	194.3	194.3	193.6	190.9	195.1	194.5	140.4	93.7
New Orleans, La	211.7	213.2	210.0	215.5	214.4	214.0	215.2	210.1	212.4	211.0	210.2	[3] 213.2	216.1	157.6	97.6
New York, N. Y	198.8	201.5	201.0	205.8	204.1	204.1	203.4	202.2	203.7	202.4	200.0	205.3	204.3	149.2	95.8
Norfolk, Va	198.0	200.8	203.5	208.9	206.1	202.0	206.9	204.9	205.2	203.5	202.0	208.7	209.8	146.0	93.6
Omaha, Nebr	190.9	194.7	195.7	197.9	196.4	196.2	201.1	198.9	198.4	196.5	195.7	198.0	203.1	139.5	92.3
Peoria, Ill	206.5	210.0	211.9	214.4	214.9	214.6	218.9	212.4	211.1	210.8	207.9	215.7	216.8	151.3	93.4
Philadelphia, Pa	193.5	196.8	197.9	199.9	198.3	195.2	198.7	198.1	197.9	196.7	195.0	200.4	199.3	143.5	93.0
Pittsburgh, Pa	200.8	205.4	204.8	208.0	207.9	205.3	208.8	208.0	206.1	204.6	202.2	208.0	208.0	147.1	92.5
Portland, Maine	187.2	188.4	189.7	193.8	194.8	194.7	197.2	191.1	190.0	191.5	189.7	194.3	195.0	138.4	95.9
Portland, Oreg	206.3	207.8	209.7	211.1	211.6	213.6	219.4	218.8	221.6	222.5	220.4	224.2	223.5	158.4	96.1
Providence, R. I	201.3	205.2	207.0	210.9	209.0	209.7	208.9	206.5	206.8	206.4	202.9	210.1	209.2	144.9	93.7
Richmond, Va	191.3	195.0	197.4	202.4	200.7	195.8	197.5	195.0	195.5	197.1	193.5	200.3	201.5	138.4	92.2
Rochester, N. Y	192.0	193.5	193.7	198.1	198.6	197.5	199.3	198.3	194.3	193.3	192.1	198.5	198.5	142.5	92.3
St. Louis, Mo	206.2	208.6	207.5	211.6	210.6	206.8	212.8	207.8	207.5	207.6	207.1	212.4	212.2	147.4	93.8
St. Paul, Minn	186.0	187.9	187.5	190.3	188.8	189.1	192.3	191.6	191.0	190.4	188.9	192.9	192.1	137.3	94.3
Salt Lake City, Utah	196.6	202.0	202.6	203.1	201.0	204.9	207.5	206.6	208.6	207.3	207.4	211.8	209.8	151.7	94.6
San Francisco, Calif	210.1	212.9	213.1	213.7	209.9	212.6	215.5	215.3	222.1	216.3	219.3	223.2	221.1	155.5	93.8
Savannah, Ga	201.8	207.1	208.2	218.3	212.5	210.2	217.1	213.2	212.2	212.4	208.5	215.3	216.0	158.5	96.7
Scranton, Pa	193.2	198.1	200.9	208.3	206.1	202.7	204.1	202.6	202.2	201.1	196.0	201.6	201.1	144.0	92.1
Seattle, Wash	203.1	207.4	205.0	208.0	205.5	205.8	208.5	209.3	212.8	213.5	213.6	214.4	211.8	151.6	94.5
Springfield, Ill	201.6	204.4	204.7	209.6	210.1	208.4	214.0	207.8	208.0	207.5	206.0	214.0	214.4	150.1	94.1
Washington, D. C	196.1	202.6	200.1	203.8	203.5	200.4	202.2	201.2	200.1	198.8	195.2	202.4	201.8	145.5	94.1
Wichita, Kans. [1]	207.8	210.9	211.2	211.8	211.9	210.7	216.4	214.0	215.3	215.1	213.0	219.0	220.4	154.4	-------
Winston-Salem, N. C. [1]	196.3	197.8	197.5	200.6	200.6	198.9	200.6	197.8	198.3	197.8	195.6	203.7	206.6	145.3	-------

[1] June 1940=100.

[2] Estimated index based on half the usual sample of reports. Remaining reports lost in the mails. Index for December 15, reflects the correct level of food prices for New Haven.

[3] Estimated index based on half the usual sample of reports. Remaining reports lost in the mails. Index for February 15 reflects the correct level of food prices for New Orleans.

TABLE D-6: Average Retail Prices and Indexes of Selected Foods

Commodity	Average price Dec. 1949	Indexes 1935-39=100													
		Dec. 1949	Nov. 1949	Oct. 1949	Sept. 1949	Aug. 1949	July 1949	June 1949	May 1949	Apr. 1949	Mar. 1949	Feb. 1949	Jan. 1949	Dec. 1948	Aug. 1939
Cereals and bakery products:															
Cereals:	*Cents*														
Flour, wheat.....5 pounds..	48.1	186.6	186.3	184.8	184.2	183.6	183.9	184.9	186.3	186.0	186.3	186.4	187.0	185.7	82.1
Corn flakes.....11 ounces..	16.8	177.9	177.7	177.3	177.8	178.0	178.0	178.7	178.6	178.2	178.0	177.8	177.4	177.8	92.7
Corn meal.....pound..	8.5	178.2	178.2	179.8	182.2	182.4	181.7	181.7	184.6	184.7	185.1	186.4	189.0	194.9	90.7
Rice [1].....do....	16.6	93.5	94.1	98.4	103.3	106.1	104.9	104.6	106.6	107.5	107.3	107.4	107.2	107.6	(2)
Rolled oats [3].....20 ounces..	16.2	146.7	147.4	148.0	148.1	148.4	149.0	149.2	149.3	150.0	151.8	152.2	155.5	155.8	(2)
Bakery products:															
Bread, white.....pound..	14.0	164.0	164.1	164.1	164.2	164.1	164.2	164.3	163.8	164.0	162.5	163.3	163.2	163.0	93.2
Vanilla cookies.....do....	44.6	190.6	190.4	190.1	193.2	191.3	190.8	190.9	194.0	194.5	194.4	194.3	195.6	194.9	(4)
Meats, poultry, and fish:															
Meats:															
Beef:															
Round steak.....do....	87.0	257.5	262.2	260.8	260.2	264.7	263.1	264.6	246.8	240.7	234.5	218.5	248.3	261.1	102.7
Rib roast.....do....	60.7	242.1	244.2	243.7	241.7	237.8	237.0	239.6	228.2	226.5	224.1	213.8	241.7	253.1	97.4
Chuck roast.....do....	57.0	254.5	260.3	261.3	253.8	248.1	249.6	252.0	234.6	237.3	235.0	224.3	257.7	276.8	97.1
Hamburger [5].....do....	51.2	165.7	166.8	166.8	168.0	167.2	167.2	168.4	162.7	161.8	161.9	156.8	178.9	181.7	(4)
Veal:															
Cutlets.....do....	99.1	248.3	250.8	252.1	254.6	252.6	249.7	254.7	248.1	251.5	250.0	251.9	248.7	248.7	101.1
Pork:															
Chops.....do....	60.2	182.7	201.6	228.3	264.0	263.6	234.6	252.4	229.5	229.6	223.5	201.6	203.4	204.6	90.8
Bacon, sliced.....do....	61.2	160.8	170.7	183.9	177.6	173.5	169.4	168.4	166.9	176.8	178.8	179.5	190.0	195.8	80.9
Ham, whole.....do....	57.1	194.2	195.1	206.5	233.0	232.7	222.5	218.6	211.3	221.2	217.2	213.3	222.5	225.3	92.7
Salt pork.....do....	35.3	169.0	181.5	176.1	171.3	169.5	163.1	161.9	161.4	167.5	169.7	171.1	191.6	211.6	60.0
Lamb:															
Leg.....do....	68.0	239.9	245.8	250.1	258.7	251.7	269.7	282.8	279.8	275.3	244.5	232.1	238.1	242.4	95.7
Poultry.....do....	.....	179.5	184.5	184.6	192.5	191.5	182.8	184.4	190.5	201.2	198.9	199.0	208.9	208.0	94.6
Frying chickens: [6]															
New York dressed [7].....do....	44.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	(8)	(8)	(8)	(8)	(8)
Dressed and drawn [7].....do....	59.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	(8)	(8)	(8)	(8)	(8)
Fish:															
Fish (fresh, frozen) [9].....do....	(9)	267.1	266.4	268.4	260.1	254.4	251.1	252.2	254.5	261.4	266.8	267.2	272.4	268.5	98.8
Salmon, pink [3].....16-ounce can..	47.1	359.8	367.9	385.7	428.8	434.1	439.0	454.4	458.4	460.7	462.7	466.3	468.3	466.0	97.4
Dairy products:															
Butter.....pound..	73.5	201.9	201.3	200.4	200.1	196.5	192.9	193.2	194.6	197.0	201.8	203.6	205.9	207.6	84.0
Cheese.....do....	52.5	232.2	232.4	232.2	230.2	228.6	225.8	226.4	226.5	227.5	230.9	234.0	245.8	246.8	92.3
Milk, fresh (delivered).....quart..	21.0	171.1	171.3	172.3	169.8	169.8	168.4	167.9	168.4	170.1	176.2	177.5	179.9	184.5	97.1
Milk, fresh (grocery).....do....	19.5	173.4	174.2	175.6	174.1	174.6	172.2	171.6	171.6	174.4	179.8	182.4	185.7	189.4	96.3
Milk, evaporated.....14½-ounce can..	12.5	175.7	178.1	176.3	177.3	177.5	179.2	180.5	181.9	186.5	192.5	200.2	204.6	208.0	93.9
Eggs: Eggs, fresh.....dozen..	61.6	178.0	207.8	227.8	232.6	222.2	204.1	198.0	190.9	183.8	180.1	179.6	209.6	217.3	90.7
Fruits and vegetables:															
Fresh fruits:															
Apples.....pound..	9.2	174.9	165.8	165.0	184.7	192.1	248.1	209.9	311.4	306.2	289.8	275.5	255.7	241.5	81.6
Bananas.....do....	16.5	273.9	277.9	273.9	271.4	273.0	280.7	284.3	274.1	272.8	275.2	272.7	267.7	269.3	97.3
Oranges, size 200.....dozen..	41.6	146.8	167.3	195.3	183.4	200.1	218.5	209.0	194.2	173.2	175.8	165.7	168.4	153.7	96.9
Fresh vegetables:															
Beans, green.....pound..	26.8	245.9	198.1	137.4	156.4	184.1	168.5	178.0	186.8	209.4	194.3	222.0	234.6	173.3	61.7
Cabbage.....do....	6.2	164.0	143.0	147.9	168.1	176.3	164.2	170.0	214.3	197.8	211.9	179.2	163.7	142.5	103.2
Carrots.....bunch..	11.1	206.8	219.9	202.0	197.0	191.3	187.2	188.9	187.4	181.0	184.3	196.7	199.9	184.2	84.9
Lettuce.....head..	13.1	158.3	222.9	199.7	254.7	209.3	156.5	131.8	163.6	243.2	229.3	220.2	185.9	170.6	97.6
Onions.....pound..	9.1	220.9	204.9	191.9	179.3	160.3	186.6	204.3	187.8	155.3	148.1	153.9	155.7	156.9	86.8
Potatoes.....15 pounds..	70.5	195.3	194.1	196.0	208.4	222.1	233.5	259.7	271.6	246.5	237.2	237.9	225.5	208.3	91.9
Spinach.....pound..	(10)	(10)	(10)	(10)	206.8	193.0	177.2	143.8	154.2	190.4	213.8	259.4	202.3	162.2	118.4
Sweetpotatoes.....do....	10.2	195.8	182.6	183.0	206.1	270.8	322.6	330.4	312.4	268.5	234.2	220.9	211.4	198.1	115.7
Tomatoes [11].....do....	26.7	195.4	168.8	[12]100.0	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Canned fruits:															
Peaches.....No. 2½ can..	28.5	148.2	149.8	152.4	155.5	158.3	161.6	163.5	166.8	168.4	168.2	168.4	169.0	168.2	92.3
Pineapple.....do....	38.1	175.2	177.0	179.4	180.9	183.0	183.7	182.5	182.2	182.5	182.5	182.6	180.4	181.3	96.0
Canned vegetables:															
Corn.....No. 2 can..	18.6	149.8	152.4	153.1	155.1	155.3	155.7	155.7	156.9	158.8	159.8	159.4	160.2	160.4	88.6
Peas.....do....	14.7	112.5	112.6	112.8	112.3	112.9	113.5	113.8	113.8	115.0	116.3	117.0	117.1	117.2	89.8
Tomatoes.....do....	14.2	157.8	158.4	158.4	158.8	161.4	171.8	174.5	175.2	175.4	177.1	178.3	179.6	180.0	92.5
Dried fruits: Prunes.....pound..	23.6	231.8	230.7	232.0	231.3	230.2	228.9	226.9	226.2	226.4	224.0	220.9	218.9	216.6	94.7
Dried vegetables: Navy beans..do....	15.3	209.0	211.7	219.2	224.4	224.7	223.1	223.9	225.7	227.4	230.0	226.4	239.1	246.2	83.0
Beverages: Coffee.....do....	73.4	291.9	264.8	213.4	210.6	208.4	207.8	207.2	206.8	207.8	208.1	208.6	208.3	207.4	93.3
Fats and oils:															
Lard.....do....	17.0	114.2	119.3	130.4	133.9	129.4	120.1	121.4	121.2	125.0	131.2	133.2	163.2	181.0	65.2
Hydrogenated veg. shortening [13].do....	31.9	154.3	158.5	159.1	159.3	158.9	163.7	165.4	167.1	174.9	176.9	187.1	197.2	202.8	93.9
Salad dressing.....pint..	33.6	138.6	139.3	140.9	142.6	139.3	140.2	143.0	145.9	149.2	151.6	156.1	159.3	162.7	(4)
Margarine.....pound..	28.5	156.1	157.9	161.0	171.8	165.0	157.7	159.0	161.3	170.5	181.9	186.7	199.0	208.6	93.6
Sugar and sweets:															
Sugar.....do....	9.7	179.7	179.8	178.4	177.7	177.4	177.1	177.4	176.9	177.1	176.5	175.1	174.2	173.8	93.6

[1] July 1947=100.
[2] Index not computed.
[3] February 1943=100.
[4] Not priced in earlier period.
[5] New specifications introduced in April 1949, in place of roasting chickens.
[6] Priced in 29 cities.
[7] Priced in 27 cities.
[8] 1938-39=100.
[9] Average price not computed.
[10] Discontinued October 1949.
[11] October 1949=100.
[12] First inclusion in Retail Food Price Index.
[13] Formerly published as shortening in other containers.

TABLE D–7: Indexes of Wholesale Prices,[1] by Group of Commodities, for Selected Periods

[1926=100]

Year and month	All commodities [2]	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products [3]	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous commodities	Raw materials	Semi-manufactured articles	Manufactured products [3]	All commodities except farm products [3]	All commodities except farm products and foods [3]
1913: Average	69.8	71.5	64.2	68.1	57.3	61.3	90.8	86.7	80.2	86.1	93.1	68.8	74.9	69.4	69.0	70.0
1914: July	67.3	71.4	62.9	69.7	55.3	55.7	79.1	82.9	77.9	86.7	88.1	67.3	67.8	66.9	65.7	65.7
1918: November	136.3	150.3	128.6	131.6	142.6	114.3	143.5	101.8	178.0	99.2	142.3	138.8	162.7	130.4	131.0	129.9
1920: May	167.2	169.8	147.3	193.2	188.3	159.8	155.5	164.4	173.7	143.5	176.5	163.4	253.0	157.8	165.4	170.6
1929: Average	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	97.5	93.9	94.5	93.3	91.6
1932: Average	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	55.1	59.3	70.3	68.3	70.2
1939: Average	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	70.2	77.0	80.4	79.5	81.3
August	78.0	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	73.3	66.5	74.5	79.1	77.9	80.1
1940: Average	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	71.9	79.1	81.6	80.8	83.0
1941: Average	87.3	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	83.8	86.9	89.1	88.3	89.0
December	93.6	94.7	90.5	114.8	91.8	78.4	103.3	107.8	90.4	101.1	87.6	92.3	90.1	94.6	93.3	93.7
1942: Average	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	100.6	92.6	98.6	97.0	95.5
1943: Average	103.1	122.6	105.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	112.1	92.9	100.1	98.7	96.9
1944: Average	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	113.2	94.1	100.8	99.6	98.5
1947: Average	165.8	128.2	168.2	118.1	160.1	84.0	104.7	117.8	95.2	104.5	94.7	116.8	93.9	101.8	100.8	99.7
August	163.7	126.9	166.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	116.3	95.5	101.8	100.9	99.9
1946: Average	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	134.7	110.8	118.1	114.9	109.5
June	112.9	140.1	112.9	122.4	109.2	87.8	112.2	129.9	98.4	110.4	98.5	126.3	105.7	107.3	106.7	105.6
November	139.7	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	153.4	129.1	134.7	132.9	120.7
1947: Average	152.1	181.2	168.7	182.4	141.7	108.7	145.0	179.7	127.3	131.1	115.5	162.6	148.5	146.0	145.5	135.2
1948: Average	165.1	188.3	179.1	188.8	149.8	134.2	163.6	199.1	135.7	144.5	120.5	178.4	158.0	159.4	159.8	151.0
December	162.4	177.3	170.2	185.3	146.7	137.2	173.8	202.2	131.1	148.4	118.5	172.2	166.8	157.6	158.9	153.1
1949: January	160.6	172.5	165.8	184.8	146.1	137.1	175.6	202.3	126.3	148.1	117.3	169.3	160.4	156.2	157.8	152.9
February	158.1	168.3	161.5	182.3	145.2	135.9	175.5	201.5	122.8	148.3	115.3	165.8	159.6	154.0	155.7	151.8
March	158.4	171.5	162.9	180.4	143.8	134.3	174.4	200.0	121.1	148.0	115.7	167.3	156.9	154.1	155.3	150.7
April	156.9	170.5	162.9	179.9	142.2	132.0	171.8	196.5	117.7	147.0	115.6	165.8	153.1	153.0	153.7	148.9
May	155.7	171.2	163.8	179.2	140.5	130.1	168.4	193.9	118.2	146.2	113.5	165.9	149.4	151.5	152.1	146.8
June	154.5	168.8	162.4	178.8	139.2	129.9	167.5	191.4	116.8	145.1	111.0	164.5	146.5	150.7	151.2	145.6
July	153.5	166.2	161.3	177.8	138.0	129.9	167.9	189.0	118.1	143.0	110.3	163.2	146.0	149.7	150.5	145.0
August	152.9	162.3	160.6	178.9	138.1	129.7	168.2	188.2	119.7	142.9	109.8	161.3	147.9	149.4	150.6	145.0
September	153.6	163.1	162.0	181.1	139.0	130.0	168.2	189.4	117.7	142.9	109.6	162.0	147.8	150.1	151.2	145.3
October	152.2	159.6	159.6	181.3	138.0	130.5	167.3	189.2	116.0	143.0	109.0	160.3	145.3	149.1	150.3	145.0
November	151.6	156.8	158.9	180.8	138.0	130.0	167.3	189.5	•115.9	143.4	109.7	160.4	145.1	148.1	150.2	145.0
December	151.3	155.3	155.7	179.9	138.4	130.8	167.8	190.3	115.3	144.1	110.7	159.9	144.7	147.9	150.2	145.5

[1] BLS wholesale price data, for the most part, represent prices in primary markets. They are prices charged by manufacturers or producers or are prices prevailing on organized exchanges. The weekly index is calculated from 1-day-a-week prices; the monthly index from an average of these prices. Monthly indexes for the last 2 months are preliminary.

The indexes currently are computed by the fixed base aggregate method, with weights representing quantities produced for sale in 1929–31. (For a detailed description of the method of calculation see "Revised Method of Calculation of the Bureau of Labor Statistics Wholesale Price Index," in the Journal of the American Statistical Association, December 1937.)

Mimeographed tables are available, upon request to the Bureau, giving monthly indexes for major groups of commodities since 1890 and for subgroups and economic groups since 1913. The weekly wholesale price indexes are available in summary form since 1947 for all commodities; all commodities less farm products and foods; farm products; foods; textile products; fuel and lighting materials; metals and metal products; building materials; and chemicals and allied products. Weekly indexes are also available for the subgroups of grains, livestock, meats, and hides and skins.

[2] Includes current motor vehicle prices beginning with October 1946. The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in September 1946, the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sale and the Bureau carried April 1942 prices foward in each computation through September 1946.

• Corrected.

TABLE D–8: Indexes of Wholesale Prices,[1] by Group and Subgroup of Commodities

[1926=100]

Group and subgroup	1949												1948	1946	1939
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	June	Aug.
All commodities[2]	151.3	151.6	152.2	•153.6	152.9	153.5	154.5	155.7	156.9	158.4	158.1	160.6	162.4	112.9	78.6
Farm products	155.3	156.8	159.6	163.1	162.3	166.2	168.8	171.2	170.5	171.5	168.3	172.5	177.3	140.1	61.0
Grains	160.9	156.4	155.3	156.4	160.4	154.1	154.9	156.9	163.8	162.6	157.2	167.7	171.1	151.8	51.5
Livestock and poultry	168.2	169.6	177.7	186.6	186.3	188.5	193.3	191.5	186.0	195.0	187.2	194.7	204.6	137.4	66.0
Livestock	187.6	188.3	197.6	207.5	206.6	209.4	212.6	207.7	202.4	209.5	201.1	209.9	221.7	143.4	67.7
Other farm products	145.0	148.2	148.8	149.6	150.1	155.0	158.7	160.8	160.0	158.6	158.9	159.4	161.4	137.5	60.1
Eggs[3]	99.1	132.5	147.5	158.5	146.4	138.7	126.9	125.2	124.4	116.1	112.5	124.4	140.9	97.3	47.5
Foods	158.7	158.9	159.6	162.0	160.6	161.3	162.4	163.8	162.9	162.9	161.5	165.8	170.2	112.9	67.2
Dairy products	154.4	154.7	154.6	153.5	152.7	149.2	145.5	145.9	147.2	154.8	159.8	163.6	171.2	127.3	67.9
Cereal products	144.6	144.6	143.7	142.8	146.1	145.6	145.1	145.3	146.5	146.7	148.0	150.0	150.0	101.7	71.9
Fruits and vegetables	132.5	130.8	128.1	126.9	130.3	145.4	157.5	167.3	158.1	151.7	152.3	145.3	139.8	136.1	58.5
Meats, poultry, and fish	193.4	198.9	205.0	215.1	210.7	212.2	215.5	215.2	216.0	214.8	206.1	214.2	220.8	110.1	73.7
Meats	209.5	212.9	219.6	230.4	224.4	227.3	230.3	227.0	224.9	222.4	212.5	222.8	230.8	116.6	78.1
Other foods	132.6	139.6	137.4	137.8	136.5	130.5	127.8	128.5	127.6	126.6	127.5	134.4	140.9	98.1	60.3
Hides and leather products	179.9	180.8	181.3	181.1	178.9	177.8	178.8	179.2	179.9	180.4	182.3	184.8	185.3	122.4	92.7
Shoes	184.3	184.3	183.4	183.8	183.8	183.8	184.1	184.0	186.9	187.8	187.8	187.8	188.0	129.5	100.8
Hides and skins	192.8	199.5	205.6	204.8	194.5	184.7	186.0	188.2	183.4	181.8	185.9	198.7	197.2	121.5	77.2
Leather	178.1	177.0	176.5	175.5	173.7	178.4	177.1	177.4	177.8	178.9	183.9	185.4	186.5	110.7	84.0
Other leather products	141.1	141.1	141.1	141.1	142.4	144.4	144.6	144.7	145.6	145.4	145.4	145.4	148.6	115.2	97.1
Textile products	138.4	138.0	138.0	139.0	138.1	138.0	139.2	140.5	142.2	143.8	145.2	146.1	146.7	109.2	67.8
Clothing	144.0	•144.2	144.6	144.8	144.8	144.8	145.6	146.0	146.4	147.1	147.3	147.7	148.8	120.3	81.5
Cotton goods	178.4	•177.9	176.5	174.8	170.2	167.3	169.7	172.6	176.2	180.1	184.8	186.9	189.2	139.4	65.5
Hosiery and underwear	98.4	98.4	98.4	98.4	98.5	99.6	100.4	101.2	101.2	101.2	101.3	102.5	103.7	75.8	61.5
Rayon and nylon	39.6	39.6	39.6	39.6	39.6	39.6	39.6	40.8	41.8	41.8	41.8	41.8	41.8	30.2	28.5
Silk	49.9	49.5	49.2	49.2	49.2	49.2	49.2	50.1	50.1	50.1	50.1	50.1	46.4	(4)	44.3
Woolen and worsted	146.9	146.0	145.1	150.4	152.6	157.6	159.7	159.7	160.9	161.8	162.1	161.6	159.6	112.7	75.5
Other textile products	171.5	169.0	175.6	181.5	180.9	178.8	177.7	179.1	180.9	184.9	186.9	189.0	190.0	112.3	63.7
Fuel and lighting materials	130.8	130.0	130.5	130.0	129.7	129.9	129.9	130.1	132.0	134.3	135.9	137.1	137.2	87.8	72.6
Anthracite	139.3	139.3	139.1	138.6	135.9	135.4	134.2	133.7	135.0	137.9	136.0	137.7	136.4	106.1	72.1
Bituminous coal	195.2	192.4	191.2	190.5	188.8	188.9	188.6	188.9	190.7	195.2	196.9	196.5	195.4	132.8	96.0
Coke	222.2	222.2	222.2	222.1	222.0	222.0	222.4	222.7	222.8	222.2	222.9	220.5	219.0	133.5	104.2
Electricity	(4)	(4)	70.1	68.9	68.5	70.0	68.9	68.2	67.9	67.9	68.5	67.7	67.7	67.2	75.8
Gas	(4)	88.3	87.8	89.3	88.9	89.5	90.1	90.9	92.3	92.8	91.9	88.1	91.1	79.6	88.7
Petroleum and products	108.5	108.5	109.9	109.1	109.7	110.2	110.4	110.7	113.3	115.9	118.7	121.3	122.0	64.0	51.7
Metals and metal products[5]	167.8	167.3	167.3	168.2	168.2	167.9	167.5	168.4	171.8	174.4	175.5	175.6	173.8	112.2	93.2
Agricultural machinery and equipment	143.3	•143.3	143.8	143.9	144.1	144.2	144.3	144.3	144.3	144.2	144.2	144.1	144.0	104.5	93.5
Farm machinery	145.9	•145.9	•146.4	146.5	146.6	146.6	146.7	146.7	146.7	146.7	146.7	146.6	146.5	104.9	94.7
Iron and steel	165.4	163.4	163.3	164.0	163.8	164.2	164.7	165.1	166.2	168.3	169.1	169.1	165.4	110.1	93.1
Motor vehicles	176.7	176.7	177.0	177.1	177.2	177.2	177.1	175.0	175.8	175.2	175.8	175.8	175.7	135.5	92.5
Passenger cars	186.7	186.7	187.0	187.0	187.0	187.0	185.3	182.4	183.3	182.5	183.2	183.2	183.3	142.8	95.6
Trucks	134.7	134.9	135.0	135.3	135.7	135.7	141.0	142.0	142.1	142.4	142.4	142.4	142.0	104.3	77.4
Nonferrous metals	129.2	131.7	131.5	135.7	135.9	132.1	128.8	138.2	156.4	168.4	172.5	172.5	172.5	99.2	74.6
Plumbing and heating	154.6	154.6	154.6	154.6	154.7	154.7	154.7	154.8	154.9	155.3	156.1	156.9	157.3	108.0	79.3
Building materials	190.3	189.5	189.2	189.4	188.2	189.0	191.4	193.9	196.5	200.0	201.5	202.3	202.2	129.9	89.6
Brick and tile	161.9	•161.9	161.8	161.8	161.5	161.5	160.8	160.8	160.8	162.4	162.4	162.5	160.5	121.3	90.5
Cement†	134.5	134.5	134.5	133.0	133.0	133.6	134.3	134.3	134.3	134.3	134.3	134.1	•133.5	102.6	91.3
Lumber	285.1	283.4	281.9	279.7	277.4	277.4	280.7	285.2	290.6	294.7	296.9	299.5	305.9	176.0	90.1
Paint and paint materials	139.3	139.9	141.1	143.9	143.8	145.2	153.6	157.4	157.9	162.3	165.3	166.3	161.2	108.6	82.1
Prepared paint	138.5	138.5	138.5	138.5	138.5	138.5	151.3	151.3	151.3	151.3	151.3	151.3	142.9	99.3	92.9
Paint materials	142.9	144.1	146.7	152.5	152.3	155.3	159.0	167.1	168.1	177.4	183.8	185.8	184.3	120.9	71.8
Plumbing and heating	154.6	154.6	154.6	154.6	154.7	154.7	154.7	154.8	154.9	155.3	156.1	156.9	157.3	106.0	79.3
Structural steel	185.2	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	120.1	107.3
Other building materials	169.2	168.6	168.1	168.9	167.3	168.8	168.5	170.5	173.8	178.3	179.1	179.1	176.9	118.4	89.5
Chemicals and allied products	115.3	•115.9	116.0	117.7	119.7	118.1	116.8	118.2	117.7	121.1	122.8	126.3	131.1	96.4	74.2
Chemicals	114.6	115.2	115.5	117.4	118.0	118.1	116.9	116.9	117.2	118.4	119.5	122.2	123.4	98.0	83.5
Drug and pharmaceutical materials	121.6	123.0	123.1	125.0	125.0	124.7	124.3	123.6	123.0	142.4	148.9	150.4	151.5	109.4	77.1
Fertilizer materials	117.9	•118.3	120.2	120.4	121.8	120.7	117.5	118.9	119.7	119.6	120.8	120.8	120.1	82.7	65.5
Mixed fertilizers	106.3	106.8	107.0	108.2	107.9	108.3	108.3	108.3	108.3	108.3	108.3	108.7	108.3	86.6	73.1
Oils and fats	118.2	118.3	115.6	118.4	130.3	118.5	116.9	127.0	121.2	129.3	131.7	146.1	179.4	102.1	40.6
Housefurnishing goods	144.1	143.4	143.0	142.9	142.9	143.0	145.1	146.2	147.0	148.0	148.3	148.1	148.4	110.4	85.6
Furnishings	151.2	•149.9	149.2	149.1	149.1	149.1	150.9	151.9	152.4	153.9	154.2	153.4	153.6	114.5	90.0
Furniture	136.8	136.8	136.7	136.6	136.5	136.8	139.3	140.3	141.6	142.1	142.3	142.8	143.1	108.5	81.1
Miscellaneous	110.7	109.7	109.0	109.6	109.8	110.3	111.0	113.5	118.6	118.7	118.3	117.3	118.5	98.5	73.3
Tires and tubes	64.3	62.5	60.7	60.6	60.6	62.1	64.5	64.6	64.6	64.7	64.7	65.5	66.2	65.7	59.5
Cattle feed	192.3	184.9	182.1	190.3	197.9	204.7	199.3	213.8	231.9	209.2	190.4	212.0	217.1	197.8	68.4
Paper and pulp	156.0	156.5	156.5	156.5	156.8	158.8	159.6	163.3	165.1	167.2	168.0	168.3	169.5	115.6	80.0
Paperboard	147.5	147.1	146.4	146.4	146.2	148.4	146.9	149.3	153.9	155.5	157.6	159.0	161.7	113.6	66.2
Paper	151.0	151.0	151.0	151.1	151.4	151.5	152.9	155.7	156.6	158.4	158.4	158.4	158.4	107.3	83.9
Wood pulp	183.8	189.7	190.5	190.5	190.5	190.5	205.4	216.8	219.2	223.7	227.3	227.3	233.6	154.1	69.6
Rubber, crude	37.8	35.4	34.8	37.2	35.6	35.1	34.5	37.4	38.9	40.0	38.8	39.5	38.9	46.2	34.9
Other miscellaneous	121.1	121.2	121.2	121.3	121.1	121.6	121.9	122.4	124.2	125.6	126.4	128.1	129.5	101.0	81.3
Soap and synthetic detergents	126.5	126.6	127.0	127.0	126.3	129.0	131.3	131.3	134.9	140.4	143.0	149.6	153.7	101.3	78.9

[1] See footnote 1, table D 7. [2] See footnote 2, table D–7. [4] Not available. • Corrected. r Revised.

† Revised indexes for dates prior to August 1949 available upon request.

E: Work Stoppages

TABLE E–1: Work Stoppages Resulting From Labor-Management Disputes [1]

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935–39 (average)	2,862	----------	1,130,000	----------	16,900,000	0.27
1945	4,750	----------	3,470,000	----------	38,000,000	.47
1946	4,985	----------	4,600,000	----------	116,000,000	1.43
1947	3,693	----------	2,170,000	----------	34,600,000	.41
1948	3,419	----------	1,960,000	----------	34,100,000	.37
1948: December	144	283	40,500	93,100	713,000	.09
1949: January [2]	275	385	77,000	100,000	725,000	.10
February [2]	240	370	77,000	105,000	675,000	.10
March [2]	290	440	500,000	550,000	3,500,000	.46
April [2]	365	535	160,000	210,000	1,900,000	.27
May [2]	455	680	235,000	310,000	3,450,000	.49
June [2]	385	635	575,000	675,000	4,500,000	.61
July [2]	350	600	110,000	250,000	2,400,000	.36
August [2]	380	625	140,000	240,000	2,100,000	.27
September [2]	290	525	475,000	565,000	6,550,000	.91
October [2]	250	425	600,000	1,000,000	19,000,000	2.70
November [2]	200	360	70,000	875,000	7,500,000	1.09
December [2]	120	225	40,000	400,000	1,200,000	.15

[1] All known work stoppages, arising out of labor-management disputes, involving six or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle for one or more shifts in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

[2] Data for 1949 are not final although revisions have been made on basis of most current information. Figures for December 1949, in particular, are based on very incomplete data.

F: Building and Construction

TABLE F–1: Expenditures for New Construction [1]

[Value of work put in place]

Type of construction	Expenditures (in millions)														
	1950	1949												1949 [2]	1948
	Jan. [2]	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Total	Total
Total new construction [3]	$1,500	$1,612	$1,767	$1,879	$1,922	$1,903	$1,833	$1,735	$1,576	$1,370	$1,267	$1,172	$1,293	$19,329	$18,775
Private construction	1,140	1,225	1,295	1,343	1,368	1,343	1,301	1,229	1,108	989	951	905	1,002	14,059	14,583
Residential building (nonfarm)	650	690	715	715	710	675	650	600	530	445	420	400	475	7,025	7,223
Nonresidential building (nonfarm) [4]	253	261	266	261	263	264	269	268	257	251	262	271	285	3,178	3,578
Industrial	69	68	68	68	70	71	72	76	82	89	96	104	110	974	1,397
Commercial	77	84	86	82	83	85	91	92	83	76	79	78	82	1,001	1,224
Warehouses, office and loft buildings	27	26	25	22	22	24	24	24	23	23	25	27	29	294	322
Stores, restaurants, and garages	50	58	61	60	61	61	67	68	60	53	54	51	53	707	901
Other nonresidential building	107	109	112	111	110	108	106	100	92	86	87	89	93	1,203	957
Religious	29	30	32	31	31	30	28	26	24	24	25	26	28	338	236
Educational	22	23	23	23	22	22	21	20	19	19	20	21	22	255	239
Social and recreational	18	19	20	21	22	22	23	22	20	19	19	19	20	246	211
Hospital and institutional [5]	25	24	23	22	21	19	17	15	14	12	11	11	10	199	116
Remaining types [6]	13	13	14	14	14	14	15	15	13	12	13	13	15	165	155
Farm construction	11	15	25	50	65	75	60	50	40	30	18	10	12	450	500
Public utilities	226	259	289	317	330	329	322	311	281	263	251	224	230	3,406	3,262
Railroad	25	31	34	35	36	36	37	36	34	31	27	25	27	389	379
Telephone and telegraph	40	42	43	45	47	47	48	52	51	52	57	46	45	575	713
Other public utilities	161	186	212	237	247	246	237	223	196	180	167	153	158	2,442	2,170
Public construction	360	387	472	536	554	560	532	506	468	381	316	267	291	5,270	4,212
Residential building	22	22	24	27	27	23	20	17	15	14	10	8	8	215	85
Nonresidential building (other than military or naval facilities) [7]	142	142	151	158	155	152	148	144	141	134	122	108	110	1,665	1,057
Educational	77	77	78	80	76	74	72	71	70	68	64	60	60	850	567
Hospital and institutional	41	41	44	47	45	43	40	39	36	34	31	27	28	455	219
All other nonresidential	24	24	29	31	34	35	36	34	35	32	27	21	22	360	271
Military and naval facilities	10	9	12	14	14	12	10	9	9	8	9	7	7	120	137
Highways	75	92	145	185	200	215	200	185	160	100	68	52	68	1,670	1,585
Sewer and water	45	46	50	51	52	52	51	51	49	46	42	39	41	570	481
Miscellaneous public service enterprises [8]	6	6	8	9	9	9	9	8	9	9	8	5	6	93	108
Conservation and development	48	56	68	74	77	77	75	74	67	56	45	39	40	745	597
All other public [9]	12	14	17	18	20	20	19	18	18	14	12	9	11	190	162

[1] Joint estimates of the Bureau of Labor Statistics, U. S. Department of Labor, and the Office of Domestic Commerce, U. S. Department of Commerce. Estimated construction expenditures represent the monetary value of the volume of work accomplished during the given period of time. These figures should be differentiated from permit valuation data reported in the tabulations for urban building authorized and the data on value of contract awards reported in table F–2.

[2] Preliminary.

[3] Includes major additions and alterations, except for private residential building which covers new construction only.

[4] Expenditures by privately owned public utilities for nonresidential buildings are included under "Public utilities."

[5] Includes Federal contributions toward construction of private non-profit hospital facilities under the National Hospital Program distributed about as follows: 1949, first quarter, $1 million; second quarter, $2 million; third quarter, $4 million; fourth quarter, $6 million; and January 1950, $2 million.

[6] Hotels and miscellaneous buildings not elsewhere classified.

[7] Excludes expenditures to construct facilities used in atomic energy projects.

[8] Covers primarily publicly owned electric light and power systems and local transit facilities.

[9] Covers construction not elsewhere classified such as airports, navigational aids, monuments, etc.

TABLE F-2: Value of Contracts Awarded and Force-Account Work Started on Federally Financed New Construction, by Type of Construction [1]

Period	Value (in thousands)															
	Total new construction [2]	Airports [3]	Building									Conservation and development			Highways	All other [4]
			Total	Residential	Nonresidential							Total	Reclamation	River, harbor, and flood control		
					Total	Educational [5]	Hospital and institutional			Administration and general [6]	Other nonresidential					
							Total	Veterans'	Other							
1936	$1,533,439	(7)	$561,394	$53,465	$497,929	(8)	(8)	(8)	(8)	(8)	(8)	$189,719	$73,797	$115,913	$311,685	$270,639
1939	1,586,604	$4,753	669,222	231,071	438,151	(8)	(8)	(8)	(8)	(8)	(8)	228,423	116,612	109,811	355,701	$31,505
1942	7,775,497	579,176	6,130,389	549,472	5,580,917	(8)	(8)	(8)	(8)	(8)	(8)	217,795	150,708	67,087	347,988	930,149
1946	1,450,252	14,859	549,656	435,453	114,203	(8)	(8)	(8)	(8)	(8)	(8)	300,408	169,253	131,152	535,784	49,548
1947	1,294,069	24,645	276,514	51,186	225,328	$47,692	$101,831	$96,123	$5,708	$31,159	$44,646	308,029	77,095	230,934	657,067	27,794
1948	1,690,182	40,718	332,793	8,328	324,465	1,417	246,242	168,015	78,227	28,797	48,009	494,604	147,921	346,683	769,089	43,978
1949 [9]	1,716,813	(8)	486,360	29,369	456,991	1,000	301,163	121,879	179,284	85,748	69,080	489,419	188,948	300,471	689,078	51,956
1948: December	165,208	1,059	20,425	1,855	18,570	0	13,599	96	13,471	1,821	3,483	66,001	22,558	44,343	74,085	2,788
1949: January	87,542	(8)	30,810	87	30,723	148	8,122	359	7,763	24,784	3,669	14,977	7,596	7,381	34,465	1,260
February	94,727	(8)	39,110	1,970	37,140	635	10,023	5,468	4,555	22,615	3,867	23,966	3,079	20,887	28,961	2,690
March	169,357	(8)	35,908	1,773	34,135	0	25,571	9,410	16,161	1,637	6,927	84,332	22,536	61,796	41,619	7,498
April	117,506	(8)	27,054	2,801	24,253	0	18,779	573	18,204	930	4,544	35,541	18,778	16,763	82,057	2,854
May	230,963	(8)	44,061	6,245	37,816	17	18,335	750	17,585	13,607	5,857	88,553	61,537	27,016	83,750	4,599
June	264,597	(8)	98,351	14,730	83,621	0	53,924	14,648	39,276	10,418	19,279	78,249	26,563	51,686	79,309	8,607
July	131,126	(8)	31,727	608	31,119	0	21,066	123	20,942	1,960	8,074	21,932	6,822	15,110	78,435	2,032
August	171,896	(8)	37,616	16	37,600	140	24,026	25,492	8,534	946	2,488	52,158	12,341	39,847	79,004	3,088
September	145,492	(8)	56,681	249	56,432	0	52,364	26,269	26,095	534	3,534	22,138	14,439	7,699	63,835	3,638
October	81,773	(8)	18,850	672	18,178	0	14,212	8,737	5,475	2,392	1,574	12,553	1,091	11,462	49,824	846
November [10]	112,445	(8)	23,181	9	23,172	60	14,724	7,387	7,337	5,306	3,082	42,152	5,662	36,490	38,097	9,015
December [9]	119,389	(8)	37,011	209	36,802	0	30,018	22,661	7,357	599	6,185	12,838	8,504	4,334	63,441	6,099

[1] Excludes projects classified as "secret" by the military, and all construction for the Atomic Energy Commission. Data for Federal-aid programs cover amounts contributed by both the owner and the Federal Government. Force-account work is done, not through a contractor, but directly by a government agency, using a separate work force to perform nonmaintenance construction on the agency's own properties.

[2] Includes major additions and alterations.

[3] Excludes hangars and other buildings which are included under "Other nonresidential" building construction.

[4] Includes educational facilities under the Federal temporary re-use educational facilities program.

[5] Includes post offices, armories, offices, and customhouses. Includes contract awards for construction at United Nations Headquarters at New York City as follows: September 1948, $407,000; January 1949, $23,810,000.

[6] Includes electrification projects, water-supply and sewage-disposal systems, forestry projects, railroad construction, and other types of projects not elsewhere classified.

[7] Included in "All other."

[8] Unavailable.

[9] Preliminary.

[10] Revised.

TABLE F-3: Urban Building Authorized, by Principal Class of Construction and by Type of Building[1]

Period	Valuation (in thousands)								Number of new dwelling units—Housekeeping only				
	Total all classes[2]	New residential building					New nonresidential building	Additions, alterations, and repairs	Privately financed				Publicly financed
		Housekeeping				Nonhousekeeping[3]			Total	1-family	2-family[4]	Multifamily[5]	
		Privately financed dwelling units			Publicly financed dwelling units								
		Total	1-family	2-family[4]	Multifamily[5]								
1942	$2,707,873	$598,570	$478,658	$42,629	$77,283	$296,033	$22,910	$1,510,688	$278,472	184,892	133,908	15,747	30,237	95,946
1946	4,743,414	2,114,833	1,830,260	105,042	181,531	355,597	43,369	1,468,902	771,023	430,195	358,151	24,326	47,718	98,310
1947	5,561,754	2,892,003	2,362,600	156,757	372,646	35,177	29,831	1,712,817	891,926	503,094	393,720	34,105	75,269	5,100
1948	6,961,820	3,431,664	2,747,206	184,141	500,317	136,459	38,034	2,354,314	1,001,349	317,112	202,770	36,650	87,693	14,790
1948: November	477,462	215,091	178,348	9,143	27,600	23,913	1,490	187,666	69,312	22,584	25,642	1,729	5,213	2,208
December	432,979	168,482	135,189	10,043	23,251	29,712	1,940	166,872	63,972	25,849	19,225	1,965	4,329	3,277
1949: January	409,729	142,359	111,019	9,607	22,733	32,910	1,120	171,911	60,429	23,411	16,730	1,919	4,762	3,660
February	387,181	153,593	118,452	6,507	28,634	25,439	1,626	147,725	60,798	24,939	18,331	1,345	5,163	2,480
March	586,940	272,325	222,811	11,915	37,599	30,602	2,529	192,648	79,836	42,229	32,905	2,381	6,943	4,162
April	635,111	322,063	254,245	13,782	54,036	24,021	6,397	199,181	83,449	50,800	37,538	2,662	10,400	2,738
May	665,644	359,364	254,548	13,446	91,372	30,497	3,064	186,151	86,548	54,199	36,563	2,580	15,056	3,110
June	748,046	356,816	256,544	10,547	89,725	28,782	3,850	259,474	99,124	55,331	36,947	2,131	16,253	3,373
July	598,943	307,631	231,617	8,711	67,303	22,342	3,937	181,367	83,666	48,425	34,324	1,705	12,396	2,791
August	653,898	368,133	278,289	11,004	78,843	12,889	3,074	207,338	92,467	57,051	40,340	2,282	14,429	1,807
September	722,056	401,433	302,265	12,119	87,049	17,825	3,144	215,603	84,049	63,316	43,982	2,316	17,018	2,116
October[6]	678,540	376,556	297,200	13,893	65,463	18,987	3,635	196,076	83,286	57,320	41,794	2,747	12,779	2,254
November[7]	612,758	347,532	291,355	10,480	45,697	18,096	2,661	179,391	65,078	51,609	41,462	2,074	8,073	1,995

[1] Building for which building permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits.

The data cover federally and nonfederally financed building construction combined. Estimates of non-Federal (private and State and local government) urban building construction are based primarily on building-permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies. Data from building permits are not adjusted to allow for lapsed permits or for lag between permit issuance and the start of construction. Thus, the estimates do not represent construction actually started during the month

Urban, as defined by the Bureau of the Census, covers all incorporated places of 2,500 population or more in 1940, and, by special rule, a small number of unincorporated civil divisions.

[2] Covers additions, alterations, and repairs, as well as new residential and nonresidential building.

[3] Includes units in 1-family and 2-family structures with stores.

[4] Includes units in multifamily structures with stores.

[5] Covers hotels, dormitories, tourist cabins, and other nonhousekeeping residential buildings.

[6] Revised.

[7] Preliminary.

TABLE F-4: New Nonresidential Building Authorized in All Urban Places,[1] by General Type and by Geographic Division [2]

Geographic division and type of new nonresidential building	Valuation (in thousands)														
	1949											1948		1948	1947
	Nov.[3]	Oct.[4]	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Total	Total
All types	$179,391	$196,076	$215,605	$207,335	$181,367	$259,474	$186,151	$199,181	$192,648	$147,725	$171,911	$166,872	$167,666	$2,354,314	$1,712,817
New England	6,467	7,178	12,194	10,193	6,693	13,859	8,485	15,672	8,026	6,229	4,607	8,092	8,288	147,633	109,977
Middle Atlantic	33,734	35,337	33,335	37,951	28,468	35,246	26,378	28,400	26,848	16,777	47,775	28,386	29,254	392,348	272,626
East North Central	29,765	50,274	46,910	41,552	38,795	55,772	38,941	37,251	46,191	21,264	40,516	34,823	32,256	506,435	371,948
West North Central	15,902	14,153	34,351	17,666	17,824	19,736	12,255	17,178	18,663	8,535	10,812	11,345	11,624	172,407	132,163
South Atlantic	23,888	25,963	23,330	19,614	19,536	28,257	31,298	26,965	22,220	20,158	17,961	16,589	18,709	266,535	200,053
East South Central	11,800	8,027	13,155	15,638	8,279	16,128	8,897	9,621	10,231	8,048	5,394	9,890	5,197	102,763	73,009
West South Central	17,266	24,130	19,598	29,701	30,554	33,808	14,088	19,910	20,537	21,203	17,869	17,726	26,047	271,383	193,221
Mountain	14,039	5,344	10,256	7,676	6,847	17,729	7,360	6,647	7,042	3,510	4,840	4,751	3,310	82,603	58,162
Pacific	26,591	25,670	22,476	27,033	24,381	38,938	38,450	37,537	32,890	23,001	22,135	35,270	32,979	412,106	301,658
Industrial buildings [5]	10,887	18,792	17,160	15,617	15,845	16,473	14,358	19,829	15,836	16,855	26,085	19,964	20,387	299,371	322,230
New England	209	202	706	382	350	367	623	972	1,019	858	378	1,445	1,483	19,840	26,098
Middle Atlantic	2,241	5,111	2,201	2,743	5,650	2,281	2,410	4,416	3,478	3,892	4,128	5,053	7,347	65,934	58,139
East North Central	3,909	5,462	8,275	5,674	3,826	6,959	4,889	5,009	4,012	4,568	16,013	7,600	4,393	100,034	118,667
West North Central	792	956	2,328	1,150	780	1,995	1,122	2,063	1,112	1,746	860	996	882	16,058	19,930
South Atlantic	841	2,829	942	1,389	715	910	1,241	2,475	2,088	2,682	1,173	1,484	2,010	27,776	20,549
East South Central	170	180	706	1,145	775	612	570	1,664	644	600	826	843	458	9,054	13,426
West South Central	406	1,117	249	495	645	523	703	560	537	557	781	244	786	15,863	17,519
Mountain	320	242	345	100	142	329	994	493	439	107	551	380	69	2,769	2,852
Pacific	1,999	2,994	1,319	2,889	2,764	2,499	1,806	2,177	2,506	1,785	1,405	1,919	2,959	42,043	45,090
Commercial buildings [6]	58,939	67,403	73,809	70,047	57,349	65,806	65,862	64,539	61,786	67,527	55,268	53,528	66,917	825,954	686,282
New England	1,849	2,953	5,513	3,041	2,137	3,166	2,956	3,878	2,848	3,817	2,262	2,692	3,918	55,468	32,853
Middle Atlantic	9,256	9,125	14,596	13,905	7,720	8,333	9,315	14,109	8,068	6,690	14,861	6,933	13,072	132,703	91,206
East North Central	9,986	16,635	15,951	14,542	11,229	13,037	12,616	11,625	13,340	8,205	10,330	11,498	11,907	177,322	118,839
West North Central	5,014	4,170	4,604	4,732	5,139	4,240	4,541	4,802	4,955	3,437	1,456	3,381	3,666	72,809	57,240
South Atlantic	9,434	8,420	9,291	9,502	8,844	12,883	10,092	8,447	8,528	8,955	7,343	8,125	9,261	121,571	106,788
East South Central	2,756	2,879	1,976	3,231	3,268	3,268	3,207	4,949	4,333	2,129	2,002	2,674	3,191	39,391	34,680
West South Central	9,399	11,680	10,522	9,022	11,453	9,705	5,594	6,777	6,424	9,888	5,354	6,804	10,684	126,054	91,548
Mountain	1,446	1,393	2,167	3,059	1,467	2,436	2,688	1,827	2,829	1,936	2,632	1,414	1,823	35,275	26,855
Pacific	9,809	10,148	9,278	9,013	8,529	8,798	14,853	8,124	10,461	12,451	9,007	10,007	9,695	165,361	120,273
Community buildings [7]	73,528	73,706	98,681	96,164	83,691	138,831	68,573	71,780	89,276	34,679	49,152	72,192	56,648	778,045	406,920
New England	3,110	586	4,783	5,385	3,129	8,203	3,445	3,171	3,077	487	1,505	1,651	1,741	47,004	25,759
Middle Atlantic	19,463	14,109	13,731	15,848	11,236	19,215	10,360	7,427	12,506	3,717	3,314	14,051	7,279	153,109	80,190
East North Central	10,810	21,923	16,015	15,428	19,317	30,333	14,273	13,376	23,532	5,323	11,145	13,035	11,143	149,467	62,542
West North Central	7,775	6,609	23,380	7,823	9,451	11,976	4,649	8,274	5,531	2,900	6,590	5,139	5,405	53,460	34,639
South Atlantic	6,200	7,464	10,224	7,050	8,783	12,189	8,007	9,172	10,261	3,468	5,605	4,476	5,326	78,034	40,172
East South Central	5,661	4,116	9,422	10,887	4,371	6,748	4,488	2,688	4,517	2,247	1,610	5,483	1,215	38,392	16,913
West South Central	5,396	7,499	7,074	18,432	16,192	18,617	6,706	10,766	12,042	9,902	10,099	8,873	11,877	102,937	65,309
Mountain	9,102	2,940	5,452	3,722	4,350	14,205	2,351	3,768	2,446	1,245	1,505	1,809	805	34,081	18,396
Pacific	6,011	8,461	8,600	11,592	6,860	17,374	14,296	13,138	15,364	5,365	7,779	17,675	12,157	121,361	53,030
Public buildings [8]	12,602	9,689	3,904	2,761	5,270	12,643	13,277	11,046	6,654	22,843	28,096	5,274	1,882	71,953	41,049
New England	185	154	128	18	282	702	55	431	340	138	20	300	9	5,901	3,418
Middle Atlantic	747	3,851	107	409	620	991	575	453	145	457	24,010	201	140	8,681	4,712
East North Central	332	1,816	178	534	381	211	1,149	111	17	50	184	158	136	11,173	8,372
West North Central	284	441	178	440	1,105	283	55	74	4,317	0	459	1,054	251	4,815	1,696
South Atlantic	5,567	1,377	937	538	1,418	803	10,712	2,103	194	22,028	1,159	1,234	431	7,661	6,285
East South Central	0	0	500	0	28	5,120	0	0	268	0	32	721	80	8,936	830
West South Central	145	774	229	292	361	1,731	42	78	0	8	674	364	211	6,112	4,579
Mountain	2,059	28	1,371	5	121	55	39	82	276	3	44	803	260	3,605	2,416
Pacific	3,372	1,249	280	526	954	2,746	649	7,716	1,097	158	1,514	439	354	15,069	8,741
Public works and utility buildings [9]	11,718	11,424	6,527	10,048	8,508	13,928	10,635	20,304	7,953	10,540	8,571	9,398	11,853	180,020	143,824
New England	345	2,135	53	702	129	778	700	6,459	131	729	145	1,584	371	11,439	15,085
Middle Atlantic	599	513	319	3,467	1,986	2,743	2,127	274	1,093	1,225	605	1,178	262	16,656	24,968
East North Central	2,026	390	1,828	1,839	1,309	1,813	1,158	3,714	2,726	2,420	2,157	1,339	2,148	35,809	35,972
West North Central	922	329	1,994	2,004	442	208	569	745	953	234	1,202	223	620	13,574	8,737
South Atlantic	1,108	5,484	1,031	459	1,039	799	645	3,889	535	1,383	2,265	787	893	22,204	19,046
East South Central	2,328	491	112	70	0	20	402	24	98	2,875	763	3	36	3,751	4,154
West South Central	1,034	1,357	700	499	1,234	2,431	257	1,021	769	383	896	1,044	2,240	12,811	7,647
Mountain	126	138	219	164	243	177	838	40	494	0	5	131	148	2,055	3,320
Pacific	3,232	586	270	840	2,128	4,960	3,850	4,138	1,164	1,292	833	3,109	5,135	31,721	24,695
All other buildings [10]	11,627	15,061	15,435	12,701	10,903	11,704	13,446	11,684	11,134	5,282	4,739	6,516	9,977	128,970	112,512
New England	768	1,147	1,010	694	657	613	616	761	610	200	277	420	766	7,981	6,764
Middle Atlantic	1,427	2,628	2,382	1,592	1,256	1,693	1,591	1,721	1,559	817	858	940	1,154	15,265	13,412
East North Central	2,642	4,050	4,665	3,836	2,733	3,420	4,857	3,416	2,565	699	688	1,193	2,529	32,430	27,556
West North Central	1,115	1,647	1,867	1,517	907	1,035	1,319	1,221	1,796	218	245	552	800	11,691	9,961
South Atlantic	738	689	906	677	1,737	703	601	879	614	607	416	513	788	9,389	7,213
East South Central	888	362	349	304	271	360	230	296	370	196	161	166	217	3,239	3,006
West South Central	887	1,703	825	961	670	793	787	710	784	467	395	397	549	7,606	6,618
Mountain	985	604	703	627	525	526	450	437	558	129	102	214	505	4,818	4,153
Pacific	2,177	2,233	2,728	2,492	2,146	2,571	2,996	2,244	2,298	1,948	1,597	2,121	2,669	36,551	33,829

[1] Building for which permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits. Sums of components do not always equal totals exactly because of rounding.

[2] For scope and source of urban estimates, see table F-3, footnote 1.

[3] Preliminary.

[4] Revised.

[5] Includes factories, navy yards, army ordinance plants, bakeries, ice plants, industrial warehouses, and other buildings at the site of these and similar production plants.

[6] Includes amusement and recreation buildings, stores and other mercantile buildings, commercial garages, gasoline and service stations, etc.

[7] Includes churches, hospitals, and other institutional buildings, schools, libraries, etc.

[8] Includes Federal, State, county, and municipal buildings, such as post offices, courthouses, city halls, fire and police stations, jails, prisons, arsenals, armories, army barracks, etc.

[9] Includes railroad, bus and airport buildings, roundhouses, radio stations, gas and electric plants, public comfort stations, etc.

[10] Includes private garages, sheds, stables and barns, and other buildings not elsewhere classified.

TABLE F-5: Number and Construction Cost of New Permanent Nonfarm Dwelling Units Started, by Urban or Rural Location, and by Source of Funds[1]

Period	Number of new dwelling units started									Estimated construction cost (in thousands)[2]		
	All units			Privately financed			Publicly financed					
	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm	Total	Privately financed	Publicly financed
1925 [3]	937,000	752,000	185,000	937,000	752,000	185,000	0	0	0	$4,475,000	$4,475,000	0
1933 [4]	93,000	45,000	48,000	93,000	45,000	48,000	0	0	0	285,446	285,446	0
1941 [5]	706,100	434,300	271,800	619,500	369,500	250,000	86,600	64,800	21,800	2,825,895	2,530,765	$295,130
1944 [6]	141,800	96,200	45,600	138,700	93,200	45,500	3,100	3,000	100	495,054	483,231	11,823
1946	670,500	403,700	266,800	662,500	395,700	266,800	8,000	8,000	0	3,769,767	3,713,776	55,991
1947	849,000	479,800	369,200	845,600	476,400	369,200	3,400	3,400	0	8,642,798	8,617,425	25,373
1948	931,300	524,600	406,700	913,500	510,000	403,500	17,800	14,600	3,200	7,198,161	7,028,980	170,181
1947: First quarter	138,100	81,000	57,100	137,000	79,900	57,100	1,100	1,100	0	808,263	800,592	7,671
January	39,300	24,200	15,100	38,200	23,100	15,100	1,100	1,100	0	223,577	215,906	7,671
February	42,800	25,000	17,800	42,800	25,000	17,800	0	0	0	244,425	244,425	0
March	56,000	31,800	24,200	56,000	31,800	24,200	0	0	0	340,261	340,261	0
Second quarter	217,200	119,100	98,100	217,000	118,900	98,100	200	200	0	1,361,677	1,360,477	1,200
April	67,100	37,600	29,500	67,100	37,600	29,500	0	0	0	418,451	418,451	0
May	72,900	39,300	33,600	72,900	39,300	33,600	0	0	0	452,226	452,226	0
June	77,200	42,200	35,000	77,000	42,000	35,000	200	200	0	490,990	489,790	1,200
Third quarter	261,200	142,200	119,000	260,700	141,700	119,000	500	500	0	1,774,150	1,770,475	3,675
July	81,100	44,500	36,600	81,100	44,500	36,600	0	0	0	539,333	539,333	0
August	86,300	47,400	38,900	86,100	47,200	38,900	200	200	0	589,470	587,742	1,728
September	93,800	50,300	43,500	93,500	50,000	43,500	300	300	0	645,347	643,400	1,947
Fourth quarter	232,500	137,500	95,000	230,900	135,900	95,000	1,600	1,600	0	1,698,708	1,685,881	12,827
October	94,000	53,200	40,800	93,500	52,700	40,800	500	500	0	678,687	675,197	3,490
November	79,700	48,000	31,700	78,900	47,200	31,700	800	800	0	584,731	578,324	6,407
December	58,800	36,300	22,500	58,500	36,000	22,500	300	300	0	435,290	432,360	2,930
1948: First quarter	180,000	102,900	77,100	177,700	100,800	76,900	2,300	2,100	200	1,315,050	1,296,612	18,438
January	53,500	30,800	22,700	52,500	29,800	22,700	1,000	1,000	(7)	393,563	374,984	8,579
February	50,100	29,000	21,100	48,900	28,000	20,900	1,200	1,000	200	368,915	359,420	9,495
March	76,400	43,100	33,300	76,300	43,000	33,300	100	100	(7)	562,572	562,208	364
Second quarter	267,600	166,100	131,500	263,900	164,600	129,300	3,700	1,500	2,200	2,286,758	2,252,961	33,797
April	99,500	55,000	44,500	98,100	54,600	43,500	1,400	400	1,000	748,848	736,186	12,662
May	100,300	56,700	43,600	99,200	56,100	43,100	1,100	600	500	769,093	758,635	10,458
June	97,800	54,400	43,400	96,600	53,900	42,700	1,200	500	700	768,817	758,140	10,677
Third quarter	263,800	144,100	119,700	259,300	140,100	119,200	4,500	4,000	500	2,111,278	2,065,770	45,508
July	95,000	52,300	42,700	93,700	51,000	42,700	1,300	1,300	(7)	750,843	738,659	12,184
August	86,600	47,600	39,000	85,100	46,600	38,500	1,500	1,000	500	719,080	703,066	16,014
September	82,200	44,200	38,000	80,500	42,500	38,000	1,700	1,700	(7)	641,355	624,045	17,310
Fourth quarter	189,900	111,500	78,400	182,600	104,500	78,100	7,300	7,000	300	1,486,075	1,413,837	72,438
October	73,400	41,300	32,100	71,900	39,800	32,100	1,500	1,500	(7)	573,888	560,347	13,541
November	63,600	38,000	25,600	61,300	35,800	25,500	2,300	2,200	100	498,040	471,336	26,704
December	52,900	32,200	20,700	49,400	28,900	20,500	3,500	3,300	200	414,147	381,954	32,193
1949: First quarter	169,800	94,200	75,600	159,400	84,100	75,300	10,400	10,100	300	1,285,835	1,189,640	96,195
January	50,000	29,500	20,500	46,300	25,800	20,500	3,700	3,700	(7)	373,940	340,973	32,967
February	50,400	28,000	22,400	47,800	25,500	22,300	2,600	2,500	100	382,684	357,270	25,414
March	69,400	36,700	32,700	65,300	32,800	32,500	4,100	3,900	200	529,211	491,397	37,814
Second quarter	279,200	157,300	121,900	267,300	147,800	119,500	11,900	9,500	2,400	2,118,686	2,007,563	111,122
April	88,300	49,500	38,800	85,000	46,700	38,300	3,300	2,800	500	666,383	637,170	29,213
May	95,400	53,900	41,500	91,300	50,600	40,700	4,100	3,300	800	732,604	692,063	40,541
June	95,500	53,900	41,600	91,000	50,500	40,500	4,500	3,400	1,100	719,699	678,330	41,369
Third quarter	298,000	171,600	126,400	290,100	164,700	125,400	7,900	6,900	1,000	2,220,778	2,153,937	66,841
July	96,100	53,300	42,800	92,700	50,100	42,600	3,400	3,200	200	710,127	682,863	27,264
August	99,000	55,900	43,100	96,600	54,300	42,300	2,400	1,600	800	743,743	722,208	21,535
September [8]	102,900	62,400	40,500	100,800	60,300	40,500	2,100	2,100	(7)	766,908	748,866	18,042
Fourth quarter												
October [9]	100,000	(10)	(10)	97,700	(10)	(10)	2,300	(10)	(10)	762,612	743,290	19,322
November [9]	93,000	(10)	(10)	91,000	(10)	(10)	2,000	(10)	(10)	691,891	673,400	18,491

[1] The estimates shown here do not include temporary units, conversions, dormitory accommodations, trailers, or military barracks. They do include prefabricated housing units.

These estimates are based on building-permit records, which, beginning with 1945, have been adjusted for lapsed permits and for lag between permit issuance and start of construction. They are based also on reports of Federal construction contract awards and beginning in 1946, on field surveys in non-permit-issuing places. The data in this table refer to nonfarm dwelling units started, and not to urban dwelling units authorized, as shown in table F-3.

All of these estimates contain some error. For example, if the estimate of nonfarm starts is 50,000, the chances are about 19 out of 20 that an actual enumeration would produce a figure between 48,000 and 52,000.

[2] Private construction costs are based on permit valuation, adjusted for understatement of costs shown on permit applications. Public construction costs are based on contract values or estimated construction costs for individual projects.

[3] Housing peak year.

[4] Depression, low year.

[5] Recovery peak year prior to wartime limitations

[6] Last full year under wartime control.

[7] Less than 50 units.

[8] Revised.

[9] Preliminary.

[10] Not available.

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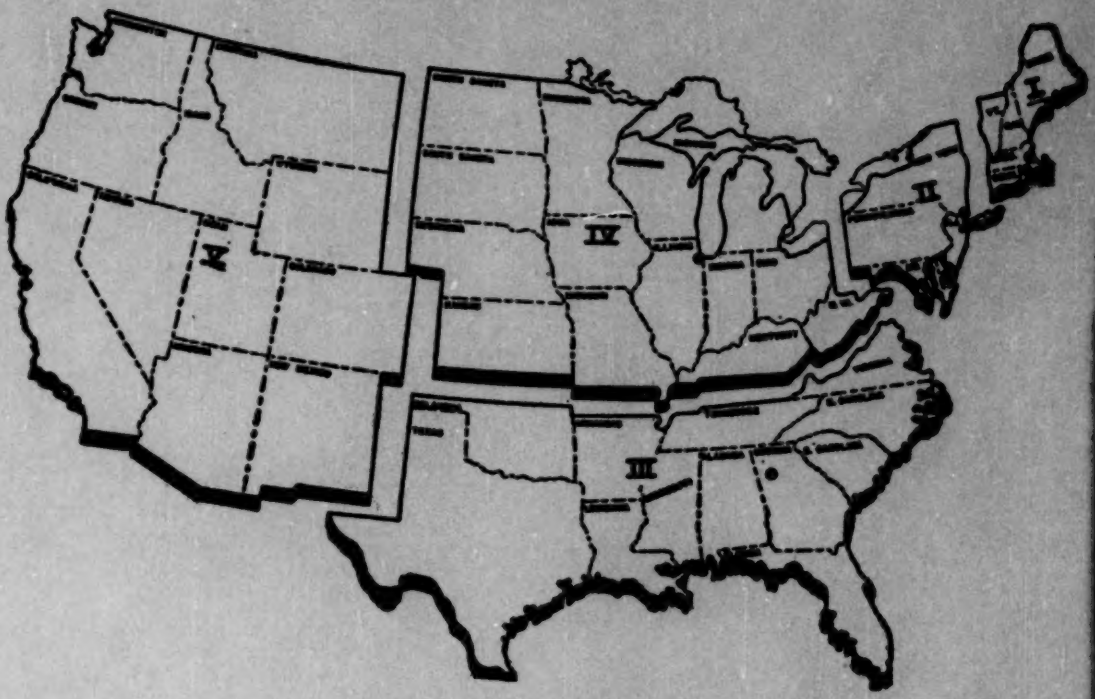

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